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THE IMPACT OF STUDENT-CENTERED COACHING ON TEACHER SELF-EFFICACY: AN EXPLORATORY CASE STUDY

By

Dustin L. Collins

BS (Indiana University) 2004 MS (Nova Southeastern University) 2010

A DISSERTATION

Presented to the Affiliated Faculty of

The College of Graduate and Professional Studies at the University of New England

Submitted in Partial Fulfillment of Requirements

For the degree of Doctor of Education

Portland & Biddeford, Maine

February, 2021

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THE IMPACT OF STUDENT-CENTERED COACHING ON TEACHER SELF-EFFICACY: AN EXPLORATORY CASE STUDY

ABSTRACT

The purpose of this qualitative exploratory case study was to determine the impact that participation in student-centered coaching had on teacher self-efficacy within a large, international school in east Asia. The study aimed to fill the gap in international school research around student-centered coaching and teacher self-efficacy. The study explored how the studentcentered coaching process impacted teacher self-efficacy and perceptions of self as well as how teachers described their development of self-efficacy in relation to the student-centered coaching model. Four elementary homeroom teachers participated in this single site study. Data were collected over a six week period in the form of pre-cycle interviews, participant reflective journals, collaborative planning documents, and post-cycle interviews. The researcher found that partnership with an instructional coach and the focus on student success were the two main factors within the process that had an impact on teacher self-efficacy. Further, evidence was collected through the sources of self-efficacy (mastery experiences, vicarious experiences, verbal persuasion, and physiological/emotional states) which showed how participating in a studentcentered coaching cycle can positively impact teacher self-efficacy (Bandura, 1997). Recommendations include that focusing on improving student learning outcomes and using data to drive discussions can impact teachers' beliefs in themselves and ability to meet student learning outcomes, job-embedded professional learning impacts teacher self-efficacy, and

schools should ensure that coaches are knowledgeable, collegial, trustworthy and able to guide teachers through reflective processes to promote thinking through the lens of student learning. Further studies could examine what leaders can do to ensure that job-embedded professional learning is implemented at their schools, could explore similarities and differences in how participation impacts teacher self-efficacy at multiple sites, and could further examine the role of the instructional coach to see if there are other implications from the coach's presence and its impact on teacher self-efficacy.

Keywords: collaborative inquiry, instructional rounds, lesson study, student-centered coaching, student learning, collaboration, professional learning culture, trust

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19 February, 2021

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CHAPTER ONE

INTRODUCTION

As professional learning cultures continue to evolve, teachers are expected to engage more and more with their colleagues and to reflect on their practice to improve student learning results (Hargreaves, 2019). Significant research has highlighted the importance of professional learning communities and the impact on practice (Battersby & Verdi 2015; Philpott & Oates, 2017). One key commonality of a collaborative learning culture is trust (Aguilar, 2018; Fullan & Kirtman, 2016). A trusting environment is present when teachers feel confident to share their vulnerabilities in their practice and aim to improve by collaborating and learning from their colleagues and other specialists in the building. Researchers note that collaboration is also important in a professional learning culture (Battersby & Verdi, 2015; Margolis, Durbin, & Doring, 2017; Richardson, 2015). It is also important to note that teachers desire input on their professional development choices and prefer involvement in professional learning opportunities within the professional context (Margolis et al., 2017). Leaders must be intentional in designing professional collaboration structures to ensure that they are meeting professional needs of teachers.

Coaching is widely utilized in athletics, corporate business, spirituality, and within the medical field (Aguilar, 2013). Aguilar (2013) expresses that the reason why coaching is beneficial is because "it is responsive to what we know about what adults need in order to be able to learn" (p. 15). Further, the author explains the benefits of structures around growth with a challenge for continued improvement (Aguilar, 2013). Sweeney and Harris (2017) discuss one collaborative instructional coaching model known as student-centered coaching, which focuses more on what the student is doing rather than what the teacher is doing within a learning

environment. The model uses data as a driving force where initial learning targets are set between the collaborative coach and the teacher (Sweeney & Harris, 2017). In addition, the model includes developing cycles where teachers or teams of teachers can participate with goal-setting based on student data, using standards as learning outcomes for students, using data as evidence-based research in collaborative planning sessions, co-teaching with the instructional coach and the participating teacher, assessing the impact of the coaching cycle based on student performance data, and developing partnerships with the school administration team (Sweeney & Harris, 2017). Overall, the student-centered coaching model strongly emphasizes the use of formative data with consistent reflection and adjustments based on student performance in relation to standardized learning targets (Sweeney & Harris, 2017).

Coaching occurs in a variety of settings. For the purpose of this study, the focus is student-centered coaching in an international school context. As an early researcher of international schools, Hayden (2006) explains some general characteristics of international schools which include "private and fee-paying" as well as opportunities which lie outside of the host country's national system (p. 11). Further, some international schools provide a global education for foreign individuals who reside in a host country for business or philanthropic reasons (Hayden, 2006). Although the author finds it very challenging to pinpoint a definition for international schools and international education, she explains the importance of focusing on schools with international programs and those that have more than one curricular approach, sometimes inclusive of the host country (Hayden, 2006). At the site of this study, the host school enrolls families of over forty nationalities and was founded by a conglomerate of five foreign embassies, forty years ago to initially serve the population of students who resided abroad.

As there is limited research around student-centered coaching in an international school context, the researcher was interested in examining how teachers feel about their own capacity and competence to facilitate learning in order for students to meet their learning targets. Poulou, Reddy, and Dudek (2019) report that "teachers' confidence in their ability to perform the actions that lead to student learning (i.e., self-efficacy) is one of the few individual teacher characteristics that reliably predicts teacher practice and student outcomes" (p. 26). Chapter one highlights the statement of the research problem in this study, the purpose of the study with regards to its relevance in the international school context, explores the two open-ended research questions, and presents the conceptual framework. The framework includes the parameters of the study through the lens of self-efficacy, assumptions and limitations of conducting the study, and a detailed description of the organization of subsequent chapters.

Statement of the Problem

Student-centered coaching focuses on helping students to meet their individual learning targets, but a problem that exists is whether or not a teacher is confident in their own abilities in facilitating learning for particular students to meet the desired learning targets. Instructional coaching models support partnerships where both the instructional coach and the teacher work collaboratively for the sake of instructional improvement (Thomas, Bell, Spelman, & Briody, 2015). There was a need to examine how teachers feel about their ability to design learning experiences which help students meet their learning goals and to observe how participation in student-centered coaching cycles impact teacher self-efficacy. Throughout the literature review process, few studies on instructional coaching and teacher self-efficacy in the international school context were found, specifically the student-centered coaching model demonstrated a gap in knowledge. As an administrator of an international school implementing a student-centered

coaching model, the researcher aimed to uncover the effectiveness of the cycles on teacher self-efficacy. Further, after the literature review was conducted, there was a significant gap in the research on student-centered coaching within an international school context. The researcher aimed to contribute to the research in the field on teacher self-efficacy to determine if one particular collaborative model, student-centered coaching, could transform teachers' own perceptions and beliefs of being able to improve student learning outcomes.

Purpose of the Study

The purpose of this exploratory case study was to examine the impact that studentcentered coaching had on teacher self-efficacy within a large international school in east Asia with approximately 800 students. This site had approximately forty nationalities of children with over eighty teachers from at least ten different countries. Instruction took place in both Mandarin Chinese and English depending on the program that students were enrolled in: dual language or monolingual. The school followed the United States' Common Core State Standards for literacy and mathematics which were utilized to create learning experiences for the students. The elementary school at this specific site spanned from pre-school (three year old students) to grade five. Multiple sections of classes existed at each grade level. For the purpose of this research, four participants engaged in the study to determine how teacher self-efficacy was impacted by participating in student-centered coaching as a means of professional collaboration and development. Results of this study contribute to the growing research on teacher self-efficacy, provide additional research on a specific model of instructional coaching, and provide pertinent information on the impact of student-centered coaching in an international school context. The results not only contribute to this research but also inform the site on the impact of the model on

teacher perceptions of self as a facilitator of learning assisting students to meet their learning goals.

Research Questions

The researcher used the following questions, which were adapted from Chong and Kong (2012) to frame the study:

RQ1: How does the student-centered coaching process impact teacher selfefficacy and perceptions of self in a large, international school in east Asia?

RQ2: How do teachers describe their development of self-efficacy in relation to the student-centered coaching model in a large, international school in east Asia?

The researcher explored the research questions within an elementary school at a large, international school in east Asia. Due to the exploratory nature of the study, this exploratory case study documented the perspectives of the individuals at this single site on their thoughts and experiences throughout the process. Four participants engaged in one six week coaching cycle in collaboration with one instructional coaches at the site. Participants completed a weekly journal on their specific experiences throughout the cycle and were expected to provide artifacts which were examined through the lens of the research questions as evidence. The researcher also interviewed each participant prior to engaging in the cycle and after engaging in the cycle to record their experiences within an exploratory case study format.

Conceptual Framework

A conceptual framework is defined as "the overarching argument for the work-both why it is worth doing and how it should be done" (Ravitch & Riggan, 2017, p. 8). When selecting a

conceptual framework, the researcher considered personal interest, topical research, and a theoretical framework in order to create a specific focus, identify the problem, determine how to organize a review of the literature and to further inform the research process (Roberts, 2010). Further, Ravitch and Riggan (2017) emphasize the importance of articulating a comprehensive conceptual framework to strengthen the methodological design of the study. Personal interests relate to the specific goals and curiosities of the researcher. Ravitch and Riggan (2017) noted that these could be influenced by "identity and positionality" as many life experiences, environmental factors, positionality, and upbringing could influence one's interests (p. 8). The authors elaborated that personal interest drives inquiry and helps researchers articulate why it is important to study a particular topic and to determine why it matters (Ravitch & Riggan, 2017).

Personal Interest. The researcher has been interested in researching teacher self-efficacy as an international school educatior living and working abroad since 2006. After reviewing the initial literature, the researcher discovered a study conducted by Widener (2014) that integrated instructional rounds as a means of professional development to measure self-efficacy. A need for additional research with this topic did not seem warranted; hence, the researcher began examining other collaborative models such as lesson study and instructional coaching. Further research identified gaps specifically with instructional coaching in an international school context; therefore, with passion for the study of teacher self-efficacy, the researcher narrowed the study to the model of student-centered coaching.

Topical Research. Topical research explored in this dissertation focuses on models of collaboration as a form of professional development. Key models specifically described within the review of literature include instructional rounds, lesson study, and instructional coaching, particularly the student-centered coaching model. Further topical research compiled focuses on

the impact of leadership on teacher self-efficacy, the impact of the environment on teacher self-efficacy, and the link between teacher self-efficacy and student performance.

Theoretical Framework. To frame the study, the researcher chose a theoretical framework stemming from the work of Albert Bandura (1997) and his theory of self-efficacy that unpacks four sources of self-efficacy: mastery experiences, physiological and emotional states, vicarious experiences, and verbal persuasion. Questions through the interview protocol were adapted to fit the needs of these categories to gain further insight into a teacher's experiences during a student-centered coaching cycle. By employing this theoretical framework, the researcher was able to examine the impact that student-centered coaching had on teacher self-efficacy within a large international school in east Asia with approximately 800 students.

Assumptions, Limitations, and Scope

There were many things that the researcher assumed within this study. Throughout the duration, it was assumed that participants would respond honestly and openly about their experiences with student-centered coaching in terms of their own growth in practice, change in thinking, or change in perceptions of their own abilities to facilitate individual learning for students. This was essential as the participants' responses were self-reported based on their own experiences, thoughts, and beliefs when responding to questions crafted from the sources of self-efficacy highlighted in the conceptual framework: mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion (Bandura, 1997). In addition, if teachers were able to see the benefits of the model, it was predicted that they might want to engage more in collaborative discussions around student learning targets and student performance.

Limitations exist for this study. One limitation focused on a teacher's fear or worry that the researcher, who served as an administrator of the team, would not be pleased with the responses. The researcher was intentional in communicating that even if participants did not have a positive experience overall, their participation still informed the research and the results would have no bearing on one's employment status. The culture and climate of the organization was also a limitation based on the teacher's receptiveness to such collaborative models and their ability and willingness to be vulnerable for the sake of participating in a student-centered coaching cycle. It was difficult at first to recruit participants within the site. Further limitations included the notion that participation was voluntary and was not related to job evaluations or performance and that the sample size was small in nature and only reflective of employees in one single site, the site of the administrator and researcher.

To ensure credibility, participants had an opportunity to review the transcribed notes from their interviews employing a transcript review. The scope of this study took place over a six week cycle. The instructional coach led the coaching cycles in partnership with the participating teachers, but is not considered a participant. The results were reflective teachers' experiences with the student-centered coaching model within the single site and provided helpful data regarding the program's impact on teacher self-efficacy as well as contributed to the research on student-centered coaching within an international school context.

Rationale and Significance

This study contributes to the scholarly research and literature because it provides additional information about collaboration within a professional learning culture in an international school context. As discussed previously, research compiled for the literature review highlighted a significant gap in research on teacher self-efficacy within an international school

context. Furthermore, the study aimed to provide pertinent research for the school site, which was in its second year of implementing a student-centered coaching model for job-embedded professional development for teachers. Sweeney (2010) indicated that it is apparent that, although student-centered coaching aims utilize student learning data, there is no discussion on how a teacher feels about his or her own capacity or competence in facilitating the learning experiences to assist the student in meeting their learning targets. For this reason, the researcher decided to use his own school context to delve deeper into how the model impacts the participants' beliefs in themselves.

This study also aimed to improve coaching practices within international school contexts by discussing the impact that participation in coaching cycles has on teacher self-efficacy. As the study was effective in identifying the sources of self-efficacy impacted by participation in student-centered coaching cycles, it is hoped that additional international school staff can feel confident using the student-centered coaching model at their sites. As the study documented how teachers' perceptions of self and their practice was impacted as a result of using this model, this finding could lead to school staffs making informed programmatic decisions around which instructional coaching model to implement in their context. Further, this study contributes to research that can support teachers who may be questioning whether the model is an effective professional learning opportunity. The study serves as foundational research to further investigate other collaborative inquiry models as well as promoting collaboration and trust around teacher and student growth within an international school context.

Definition of Terms

Teacher self-efficacy: For the purposes of this study, teacher self-efficacy is referred to as "the extent to which individuals believe they are capable of fulfilling certain requirements or performing specific tasks within a school context" (Huang, Yin, & Lv, 2019, p. 317).

Collaborative inquiry: For the purposes of this study, collaborative inquiry is defined as an approach to teacher development which involves collaboration with professional dialogue for teacher and student growth and improvement as the foundation of the discussion, typically jobembedded with students present (City et al., 2009). Within this study, there are three specific collaborative inquiry models discussed in the literature review: instructional rounds, lesson study, and instructional coaching.

Instructional rounds: For the purposes of this study, instructional rounds are defined as a collaborative inquiry model aimed at problem-solving within a school context (City et al., 2009). Instructional rounds involve students in the learning environment, data collection, analysis of the data with a team of educational professionals, and identifying targeted work to address the problem of practice (Teitel, 2014). Instructional rounds involve feedback, a solution-oriented approach, and discussions around excellence with teaching and learning (City et al., 2009).

Lesson study: For the purposes of this study, lesson study is defined as a continuous cycle of teacher development based on research within a job-embedded context, observations, discussions of the observations, planning, and delivering instruction within a new context (Lewis, 2016).

Instructional coaching: For the purposes of this study, instructional coaching is a collaborative inquiry approach where an instructional coach works collaboratively with a classroom teacher or group of teachers to provide "intensive, differentiated support to teachers so

they are able to implement best practices" (Thomas, Bell, Spelman, Briody, 2015). The focus of instructional coaching is to ensure that there is implementation of practices that are evidence-based (Thomas et al., 2015).

Student-centered coaching: Student-centered coaching is referred to as one of the instructional coaching models discussed above. With student-centered coaching, teachers engage in coaching cycles which focus on student learning targets and is data-driven where the teacher and the instructional coach collaborate regularly to make any adjustments when needed based on student learning targets and student performance (Sweeney, 2010). Elek and Page (2018) refer to coaching as a process where both the teacher and the coach are actively engaged for the same common purposes.

Conclusion

This study examined the impact that student-centered coaching has on teacher self-efficacy utilizing the four sources of self-efficacy as a framework (Bandura, 1997). The researcher aimed to contribute to the research on teacher self-efficacy as well as examined how collaboration impacted one's belief in themselves. Significant gaps in the research were identified regarding the model of student-centered coaching as well as using an international school as the context of the study. As participants were reporting on their own experiences, the researcher assumed that their responses were a true reflection of the process and employed ethical practices to ensure that individuals knew that participation and results have no bearing on job performance or job evaluations, since the study took place in the context where the researcher served as an educational leader. The results of the study contribute to international school research but also inform the site of the study with regards to the impact the student-

centered coaching model has on teachers' beliefs that they are able to assist students in meeting the desired learning targets.

Subsequent chapters highlight the processes the researcher undertook to inquire into the research questions developed. Chapter 2 presents an in-depth discussion of the literature around teacher collaboration. The chapter delves deeper into presenting the conceptual framework of the study highlighting the personal interests and investments of the research in international education as an international educational leader, the topical research around leadership and teacher self-efficacy, the environment and teacher self-efficacy, and the connection between teacher self-efficacy and student performance. Further, chapter 2 presents the theoretical framework using the sources of self-efficacy to frame the study. Chapter 2 concludes with the collation of the literature of characteristics of a professional learning culture, three models of collaborative inquiry which are built around these characteristics, further elaborating on student-centered coaching as the selected inquiry model to investigate further. As the researcher is also an educational leader, transformational leadership practices are discussed to promote impact and growth on teacher self-efficacy, concluding with a connection between teacher well-being and self-efficacy.

Chapter 3 highlights the methodology of the study, and further explains the purpose of the study, the research questions linked to collaboration and teacher self-efficacy, and the intentionality of the research design using an exploratory case study approach within a large international school context. Data collection procedures, including semi-structured interview transcriptions, artifacts to be used as examples, and participant journals led to sources of information that the researcher used during data analysis. Furthermore, chapter 3 discusses the limitations of the study, a description of the credibility of the study, and ethical issues that could

have developed. Chapter 4 reports the findings of the study based on the analysis that was conducted and provides the qualitative data and excerpts from the semi-structured interviews that were conducted as well as excerpts from the journals of the participants. Chapter 5 summarizes and discusses the results in greater detail while reiterating the problem, the purpose statement and research questions, a review of the methodology, major findings, and a conclusion which includes implications for additional work and examination in the field coupled with recommendations by the researcher for further work (Roberts, 2010). This study concludes with references and an addendum section which includes all protocols utilized during the interview process. All chapters aim to report the context and framework of the study, the design and actual implementation of the study, and the discussion held around the findings. The next chapter begins with a discussion about the study topic, context, significance, and problem statement followed by the conceptual framework and literature behind teacher self-efficacy.

CHAPTER TWO

LITERATURE REVIEW

Collaboration within a school setting can impact teacher development of pedagogical understanding and application of skills in a professional culture of learning (Lofthouse & Thomas, 2017). Models of collaboration challenge teachers to ask questions, set goals and solve problems with the purpose of improving student outcomes. Collaborative professional growth models promote teacher interaction focused on improvement and can impact student learning, the ultimate goal of the K-12 educational experience. City, Elmore, Fierman, and Tietell (2009) note that research continuously proves that when teachers work collaboratively, there is a direct impact on student learning results. As an international school leader, the researcher wanted to explore this notion further to determine if participation in a collaborative professional development model had a positive impact on teacher self-efficacy within an international elementary school setting. The researcher began the research using the Eric database, EbscoHost, Google Scholar, doctoral dissertations, and books on collaboration, which all helped identify key findings that were recorded on a literature review matrix. Key words such as collaborative inquiry, instructional rounds, lesson study, coaching, student learning, self-efficacy, collaboration, professional learning culture, stress, teacher burnout and leadership were used to compile the information. To narrow the scope of this study, the researcher focused on the impact of student-centered coaching on teacher self-efficacy. The purpose of this study was to examine the impact that student-centered coaching had on teacher self-efficacy within a large international school in east Asia with approximately 800 students.

Study Topic and Context

The topic was driven by the implementation of student-centered coaching within an international school in the elementary division. Student-centered coaching is an approach that involves an instructional coach and a teacher or group of teachers working collaboratively to help individual students meet their learning goals (Sweeney & Harris, 2017). A detailed cycle of events was previously discussed in chapter one, focusing on using standards to develop goals, using student data, co-teaching, and reflecting. This type of model requires a professional learning culture built on collaboration and trust. The underlying themes of the literature review include characteristics of a professional learning culture, the importance of collaboration within a school setting and examples of collaborative models for professional learning that have been utilized in schools, and implications for leadership on promoting collaboration. A discussion is provided on teacher well-being with a link to self-efficacy communicating the purpose of the study which reports on the impact of student-centered coaching on teacher self-efficacy in an international school context.

Significance

The results of this study address the gap in the literature on the impact of student-centered coaching model on teacher self-efficacy, the underlying statement of the problem.

Further, the study provides additional research on instructional coaching models in general within an international school context and provide potential helpful information for the site on the instrucational coaching model implemented. As the researcher is also an administrator at the school where student-centered coaching began in 2019, the results of this study further informs the school on how the student-centered coaching model has impacted teacher self-efficacy at the

site providing useful data and analysis on impact of the program and implications for the future with regards to staffing and coaching model choices.

The remainder of this chapter presents the conceptual framework of the study, which includes personal interests, topical research, and theory as a framework followed by a compilation of the literature that was collected through the research process. Further, the literature review provides an examination of three collaborative inquiry models and the impact these models have in a school environment. As previously indicated, the review of the literature showed significant gaps in research on teacher self-efficacy in an international school context.

Conceptual Framework

A conceptual framework frames the context of the study and is not explicitly discovered but constructed by the researcher. The framework serves as a big picture approach to explaining why the research is worth the effort as well as specifics about how the research should be conducted (Ravitch & Riggan, 2017). In addition, the framework combines individual knowledge based on the researcher's experiences as well as theory and research from a variety of sources. Examination of literature related to specific interests allows researchers to uncover the extent of a problem, articulate the importance of research, and find missing pieces in the literature (Ravitch & Riggan, 2017). Topical research allows the researcher to compile information to analyze the findings with regards to how they were researched; topical research helps the researchers examine the different methodologies conducted as one determines their own methodological approaches of their own study (Ravitch & Riggan, 2017). Overall, conceptual frameworks integrate three essential components to accomplish the purpose discussed: personal interests, topical research, and using theory as a framework.

Models of Collaboration

The researcher identified three models of collaboration of particular interest: instructional rounds, lesson study, and instructional coaching. While instructional rounds use protocols and specific processes aimed at school improvement, lesson study is a site-specific means of development which serves as a cycle of continuous development that embeds action research, observation, discussion, and additional teaching of a lesson in a new context (City et al., 2009; Lewis, 2016). Gutierez and Kim (2017) explained that lesson study is a collaborative approach to inquiry into best teaching practices to achieve common goals for individual participants. Lesson study is known to improve teacher pedagogical understanding, confidence, and collaboration in some professional settings and promote the development of a collaborative professional culture (Lewis, 2016). Coaching, specifically student-centered coaching, is a collaborative approach to meet student learning needs through cycles of goal-setting, assessment, instruction, and reflection in collaboration with an instructional coach (Sweeney & Harris, 2017). Collaborative inquiry models serve as a means to gather teachers together to grow and develop in the profession directly, which could potentially impact teacher self-efficacy.

Leadership and Teacher Self-Efficacy. Bandura (1997) defined self-efficacy as "an individual's belief in his or her own ability to organize and implement action to produce the desired achievements and results" (p. 3). Teacher self-efficacy within a school setting is impacted by the leaders within the school. In addition, leaders have a responsibility to establish and sustain a strong professional learning culture of trust and collaboration. When a leader brings about change within an organization, it is possible that the specific change may have an impact on individual teacher self-efficacy. Teachers with higher self-efficacy can focus more on impacting individual student learning outcomes as opposed to focusing on their fear of change in

practice or knowledge of practice (Witterholt, Goedhart, & Suhre, 2016). Transformational change occurs within a school context when leaders inspire a vision and purpose that is shared as teachers feel valued when they know they are a part of a process (Marion & Gonzalez, 2014). Transformational leaders prioritize teacher well-being, build teacher capacity and skills, and value the input of others while communicating a shared responsibility to fulfill the overall vision and purpose of the organization (Marion & Gonzales, 2014).

Environment and teacher self-efficacy. In addition to the link between leadership practices and teacher self-efficacy, there are other connections between professional learning communities, teacher self-efficacy, and student learning results, which further strengthen this research topic and warrant future studies (Durksen, Klassen, & Daniels, 2017; Voelkel & Chrispeels, 2017). Durksen et al. (2017) found that positive working environments promote teacher self-efficacy, and teachers with high self-efficacy tend to be more engaged in professional learning opportunities focused on collaboration. Teachers who participated in highly functional professional learning communities had a higher sense of collective efficacy as well (Voelkel & Chrispeels, 2017). In the initial stages of lesson study implementation within a United States context, Puchner and Taylor (2006) found that collaborative environments that provide opportunities for teachers to engage in dialogue for improvement can increase teacher content knowledge and the belief that they can impact their student's learning. Leaders should prioritize building teacher self-efficacy through collaboration, and the environment plays an important role in this effort (Voelkel & Chrispeels, 2017).

Teacher self-efficacy and student performance. Although Etame (2017) explained that there is no single initiative or experience found to significantly impact student performance, there are a few studies that established a relationship between teacher self-efficacy and student

performance. Two studies revealed a positive correlation between teacher self-efficacy and student performance, but additional studies need to be conducted to determine teacher perceptions of the impact of coaching in an international elementary school. In a study conducted by Mojavezi and Tamiz (2012), students grouped with teachers with high self-efficacy had higher academic learning results. Holzberger, Philipp, and Kunter (2013) also found that teachers with high self-efficacy had better quality in instructional practices of stimulating student thinking, managing student behavior, and supporting learning overall within a classroom setting. Professional learning communities contribute to improving teacher self-efficacy, which then positively impacts student learning results. Professional learning communities (PLCs) promote a culture of learning and challenge individuals to engage in productive dialogue with an emphasis on collaboration (Battersby & Verdi, 2015). PLCs are most effective when teachers have clear goals, engage in reflective practice, and have time to implement what they have learned through the PLC process (Voelkel & Chrispeels, 2017).

Theoretical Framework

Researchers often integrate theory to help frame their research and design of studies.

According to Anfara and Mertz (2015), the theory should provide explanations that are clear and are consistent with the "observed relations and an already established body of knowledge" (p. 5). Previous research gathered on leadership and self-efficacy, on the environment and self-efficacy, and on the impact of teacher self-efficacy on student performance has informed the selection of Albert Bandura's theory of self-efficacy as a framework for this study which was used to examine the psychological impact of student-centered coaching on international school teachers. Albert Bandura is widely known in the field of psychology for his work on human behavior, and the theory of self-efficacy remains widely used in the field of education, specifically when

examining teacher beliefs about their own performance within the classroom (Hoy & Spero, 2005). Bandura's theory provides four sources that impact an individual's self-efficacy: mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion (Bandura, 1997). These four sources were considered by the researcher and educational leader who examined transformational change through the lens of teacher self-efficacy in an international school context. These sources of self-efficacy were used to describe the impact that collaborating in a professional development model had on an international school teacher.

Student-centered coaching and self-efficacy. The theory of self-efficacy was used when implementing student-centered coaching because of the similarities of the sources of self-efficacy and the processes of student-centered coaching itself. This involved setting learning target goals and working collaboratively with an instructional coach to meet student learning goals (Sweeney & Harris, 2017). Within the cycle, instruction is designed to meet individual student learning needs (Sweeney & Harris, 2017). Through a coaching process based on teachers' individual experiences throughout the professional development process, self-efficacy can be researched.

As previously introduced, the self-efficacy work of Bandura (1997), which presents mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion, served as the framework of this study. Mastery experiences could be assessed based on teacher perceptions of experiences. For example, when a teacher believes that they have limited experience with a specific area, then they have a tendency to have lower self-efficacy (Hoy & Spero, 2005). Teachers could potentially internally measure their own success based on their students' ability to meet the learning target goals. Vicarious experiences could be classified as influencing others through teaching, coaching, or modeling (Hoy & Spero, 2005). When

teachers can connect to model teaching specific skills and can learn through job-embedded opportunities, then it is believed that self-efficacy can increase in relation to a particular skill or approach (Hoy & Spero, 2005). With verbal or social persuasion, self-efficacy could increase based on the interactions within the coaching partnership of co-planning, co-teaching, and participation in reflection sessions with the instructional coach (Sweeney, 2010). The last source of self-efficacy, as noted in the theory, relates to the emotional and physiological states of the participants. It is believed that "stress, fatigue, aches, anxiety, and mood" can all contribute to lowering self-efficacy (Block et al., 2010, p. 45). All four sources of self-efficacy are essential when thinking about how to design a study on self-efficacy when implementing a collaborative inquiry approach such as student-centered coaching.

By understanding the sources of self-efficacy as indicated in the theory, one can craft the design of their study. As the researcher aimed to examine the impact that student-centered coaching had on teacher self-efficacy within a large international school in east Asia, the four categories were used in an exploratory case study. Through interviews, journals, and artifacts, data were collected from the teacher participants using an open-ended approach.

The study mitigated weakness of the theoretical framework by addressing the openendedness of a case study approach based on perception and experience. Lee (1989) explains that there is a strong weakness of Bandura's theory of self-efficacy as the researcher argues that there is no model for explaining how expectations derive from sources of self-efficacy, which interact with the individual skills of the people and their desire and motivation for improvement. The researcher focused on teacher responses of those who engaged in the student-centered coaching model and examined perception data that were indicated in interviews and through participant journals. This design of the study intentionally addresses the criticism of the theory.

Review of the Literature

Collaborative inquiry models and job-embedded professional learning opportunities promote teacher interaction focused on improvement and can impact student learning, the ultimate goal of the K-12 educational experience. This literature review expands on the topical knowledge previously presented in the conceptual framework and focuses on professional cultures of learning within the K-12 educational setting. Further, this review provides a thorough examination of three collaborative inquiry models and the impact these models have in a school environment. The underlying themes of the literature review include characteristics of cultures of learning, the importance of collaboration within a school setting and examples of collaborative models for professional learning, and leader implications for transformational leadership in promoting collaboration.

Characteristics of Learning Cultures

Professional learning opportunities within educational settings provide teachers the opportunity to improve their knowledge and understanding of best practices in education. In addition, professional learning opportunities allow for individuals to learn the application of skills to improve their practice and to provide opportunities for teachers to engage in conversations with the ultimate goal of benefitting student learning. Philpott and Oates (2017) highlighted the notion of professional learning communities. Professional learning communities (PLCs) promote the development of a professional culture of learning and challenge individuals to engage in productive dialogue with a key emphasis on collaboration (Battersby & Verdi, 2015). Jones, Stall, and Yarbrough (2013) noted that, although research communicates that when teachers are actively engaged in professional learning communities learning takes place, it is very difficult to pinpoint and articulate a concise definition of what a culture of learning looks

like. After reviewing the literature, trust and collaboration both appeared to be themes highlighted.

Trust. Cultures of learning have an underlying need for trust, and leaders have a responsibility to set the tone regarding the development of trusting relationships. Fullan and Kirtman (2016) reported that trust must be built between individuals and within an organization. Trust-building includes articulating clear expectations of professional behavior and deadlines, following through on deadlines, establishing oneself as knowledgeable and competent in best practices in leadership, clear written and oral communication, and the ability to mediate and tend to conflict when it occurs (Fullan & Kirtman, 2016). Aguilar (2018) emphasized that trust is the foundational component of a healthy school environment and discussed relational trust, which is formed as a result of the interactions that take place socially among group members. The researcher noted that relational trust impacts student learning, involves shared responsibilities of each adult, and is influenced by the intentions of others (Aquilar, 2018). Furthermore, Canrinus, Helms-Lorenz, Buitink, and Hofman (2012) found that solid teacher relationships in a professional setting impact individual professional identity. With strong relationships built on trust, teachers can participate in collaborative learning experiences that require individuals to engage in discussions about teacher practice and student learning, which is another key characteristic of a professional learning culture.

Collaboration. According to Matherson and Windle (2017), teachers want professional development experiences that are interactive, practical, sustainable, and driven by teacher interests. In addition, collaborative experiences should be embedded into a school's culture of learning (Battersby & Verdi, 2015; Margolis, Durbin & Doring, 2017; Richardson, 2015: Young, Cavanaugh, & Moloney, 2018). Margolis et al. (2017) noted that isolated workshops and

learning experiences without transfer or application experiences are ineffective; hence, there should be a commitment of leaders to establish collaborative cultures of learning and to remove isolated practices of the past. Further, both the Boston Consulting Group and Bill and Melinda Gates Foundation found that teachers desire purposeful, collaborative, sustainable, and relatable professional learning, which are job-embedded (Richardson, 2015). These opportunities may include coaching or the development of professional learning communities as teachers recognize the impact that collaborative learning experiences had on their practice and on improving student learning (Richardson, 2015).

Sense of belonging. The research conducted by Young et al. (2018) found individuals within a culture of learning feel a strong sense of belonging to something greater than themselves, which connects to why individuals would want to be a part of a culture that promotes job-embedded opportunities. In order for collaborative cultures to be successful, professionals need the opportunities to examine strengths and challenges in an authentic manner where individuals feel free to share their mishaps in hopes of reflecting and discussing the next steps forward (Battersby & Verdi, 2015). Leaders need to be intentional in professional learning design to ensure that collaboration is an integral part of the process, and if it is not, should consider changing practices to shift a mindset from passive professional development to active professional learning through collaborative inquiry.

Collaborative Inquiry Models

Collaboration in an educational setting can be improved through the establishment of collaborative inquiry models as a means of teacher professional development. Collaborative inquiry models such as instructional rounds, lesson study, and instructional coaching for professional, job-embedded learning can serve as a method for challenging teachers within a

school context to apply what they have learned in real settings and engage in professional dialogue about improvement (City et al., 2009). Within the context of schools, job-embedded learning typically occurs in the presence of students as research supports that authentic and impactful professional learning takes place when students are present (Margolis et al., 2017). This presence of students allows teachers to observe teaching and learning in real-settings and conduct action research based on authentic experiences. Gutierez and Kim (2017) noted that teachers found learning opportunities most beneficial in class-based research or action research as it helped them understand dynamics within the classroom, to reflect on their own teaching practice with the goal of improving, and to empower teachers to collaborate and develop trusting relationships. By integrating collaborative inquiry models within PLC's, researchers iterate the importance of collaboration through reflective practices.

Young et al. (2018) noted that there are several challenges to be considered when establishing systems for collaborative work. These challenges include the fear of judgment from colleagues, and this fear often stems from feelings of inadequacy. Time constraints and logistics for peer observations have served as a challenge for some, and stress associated with the feedback process from colleagues has also been a factor (Young et al., 2018). Leaders should consider the potential barriers or challenges that individuals on the team may experience while collaborating as well as the types of job-embedded collaborative inquiry models available.

Instructional rounds, lesson study, and instructional coaching are three examples of such models that provide opportunities for teachers to learn through action research and participation in job-embedded environments. Although briefly discussed in the conceptual framework, the next three sections will expand on the models.

Instructional rounds. As instructional rounds require trust and collaboration within the professional learning culture, this collaborative inquiry model serves as a research-based approach at job-embedded practice aimed with a focus on problem-solving (City et al., 2009). The instructional rounds model could potentially have an impact on not only individual teacher growth, but also growth from a systems perspective looking at an entire district or institution. Philpott and Oates (2017) found similarities between professional learning communities and instructional rounds as each is aimed at improving the learning of students, involve collecting and analyzing data, are aimed at collaborative experiences amongst professionals, and are focused on more than an individual person and more so the overall team within the institution.

Instructional rounds are modeled after medical rounds, which include more experienced physicians taking doctors new to the field through targeted discussions involving patients (Roegman & Riehl, 2012). Medical rounds provide a foundation for physicians to work together to develop common understandings and to brainstorm solutions as physicians collaboratively visited patients. In this medical model, participants observe patterns and tests and work together to develop possible diagnoses and treatments to improve (City et al., 2009).

Educators then based the practices of instructional rounds on the work in the medical field because it is a way for educators to build common understandings of best practices in teaching and learning while promoting collegial relationships and a collaborative culture focused on individual and institutional improvement. City et al. (2009) further claim that the system of rounds can improve processes within an overall institution where professionals work collaboratively to improve their knowledge and skills. The authors also note that instructional rounds can be used as a way to build and improve the culture within a professional setting while serving as a political platform to advocate for reform in education.

Instructional rounds encompass the instructional core, which includes the student, the teacher, and the content (Fowler-Finn, 2013). Fowler-Finn (2013) further emphasized that teachers must be trained to understand the essential elements and key principles of the instructional core. These principles include:

- 1. Increases in student learning occur only as a consequence of improvements in the level of content, teachers' knowledge and skill, and student engagement.
- 2. If you change any single element of the instructional core, you have to change the other two.
- 3. If you can't see it in the core, it's not there.
- 4. Task predicts performance.
- 5. The real accountability system is in the tasks that students are asked to do.
- 6. We learn to do the work by doing the work, not by telling other people to do the work, not by having done the work at some point in the past, and not by hiring experts who act as proxies for our knowledge about how to do the work.
- 7. Description before analysis, analysis before prediction, prediction before evaluation. (Fowler-Finn, 2013, p. 61)

Participants who understand the key principles of instructional rounds can better identify and promote student learning through the process (Fowler-Finn, 2013).

Key elements of instructional rounds include developing a problem of practice, conducting classroom observations as part of job-embedded practice involving students in an authentic context, collecting data in the form of anecdotal notation, collectively analyzing data and debriefing, and embedding findings into targeted work to address the problem of practice in the form of a theory of action (Teitel, 2014). City et al. (2009) explained that instructional rounds

typically involve a network of individuals who will spend time in individual classrooms recording what they see and hear as they aim to collect evidence to contribute to a collaborative discussion to address the identified problem of practice within the school context. Within these discussions, norms of effective collaboration are first established, and embedded protocols are utilized to guide the group discussions during the collaborative professional learning process (Philpott & Oates, 2016).

Through guided protocols and collaborative opportunities, instructional rounds focus on improvement and provide opportunities for educators to engage in professional learning experiences which promote the creation of a common definition for excellence in teaching and learning as individuals are empowered to take action (City, 2011). City (2011) also emphasized that instructional rounds help identify other areas that practitioners can focus on for future professional learning opportunities. Regarding future actions after completing the instructional rounds observations and anecdotal note-taking, Fowler-Finn (2013) described the development of a theory of action as the final step for committing to the next steps in the process.

After participating in instructional rounds, participants receive feedback with the aim of developing solutions, and the participants in the observations and discussions will have developed a common understanding of excellence in teaching and learning through their interactions (City et al., 2009). Instructional rounds give opportunities for educators to engage authentically in creating solutions to identified problems. DeLuca, Klinger, Pyper, and Woods (2015) found that teachers who participated in instructional rounds changed their thinking and practice regarding assessment as they were able to engage in inquiry around targeted areas. With regards to improvement in practice, specifically, teachers who participated in the collaborative, job-embedded opportunities changed their assessment practices as well as their understanding of

formative assessment and their application of assessment for learning within the classroom (DeLuca et al., 2015). More research can be conducted on the connection between instructional rounds and the impact on professional practice.

As a means of collaborative professional learning, instructional rounds have the potential to impact professional growth both inside and outside of a single context. An example took place in Western Australia, where researchers found that rounds promoted professional learning within a single district as the system impacted teacher practice and improved collaboration amongst teachers, an essential component of a professional culture of learning (Mansfield & Thompson, 2017). Instructional rounds are known to impact the thinking and practice of teachers and have extended outside of a single school context as they have been found to impact administrator relationships and interactions within a school district. Roegman, Hatch, Hill, and Kniewel (2015) found that instructional rounds improved professional interactions and relationships among administrators within a school district. In addition, Fowler-Finn (2013) explained that as a result of instructional rounds, school leaders must be prepared to use the results to promote change within the school setting stressing the importance of shared accountability and responsibility for both student and participant learning. Although several successes are noted regarding instructional rounds, there is limited research that highlights the impact that a system of instructional rounds has on student learning results, and the approaches are predominately used in large school districts across several schools.

Lesson study. Because lesson study is a systematic approach to improving teaching practices, participants of this collaborative inquiry model should have a shared vision and common goal as the underlying premise for the collaborative work (Gutierez, 2016). Participants meet regularly to plan lessons with targeted areas to improve on and center their work around a

research lesson, which is job-embedded, planned collaboratively, and presented by a participant or participants (Gutierez, 2016). Further, during the research lesson, the other participants collect action research during the observation phase related to the goals, which are then compiled and shared with the participant to identify strengths, areas of challenge, and next steps as a leader (Gutierez, 2016).

A collaborative model that is focused on students, teacher knowledge, and assessment, lesson study serves as an opportunity for teachers to grow professionally in their knowledge and understanding of best teaching practices and in becoming effective members of a professional learning culture (Regan, et al., 2016). Originally developed and practiced in Japan for over one hundred years, lesson study serves as a more targeted approach to collaborative inquiry (Lewis, 2016). Lesson study is a cycle of continuous development which embeds action research, observation, discussion, and additional teaching of a lesson in a new context, and it has been found to significantly improve teacher pedagogical understanding, confidence, and collaboration within a professional setting (Lewis, 2016). Gutierez (2016) explained that lesson study is a collaborative approach to inquiry into best teaching practices with the aim of achieving common goals for all individuals who participate. One such example was highlighted in the dissertation of Kolb (2015), who found that lesson study helped teachers significantly in implementing the academic standards school-wide in mathematics, which were used as a means of instruction.

In addition to the benefits above, Alvine, Judson, Schein, and Yoshida (2007), Gutierez (2016), and Lim Lee, Saito, and Haron (2011) all identified benefits of lesson studies. Alvin et al. (2011) emphasized the importance of embedding lesson study practices within teacher training programs as a way to improve teaching and learning because the process is motivating for teachers and provides new tools and strategies for them to improve their approaches to

teaching. Gutierez (2016) found that the implementation of lesson study over a period of a year improved teacher content knowledge of science because they were able to regularly discuss the subject area and enhanced the teacher's pedagogical approaches as teachers felt comfortable within the setting to take risks and try out new strategies. Further, teachers who participated in the study found the experiences beneficial as it promoted a culture of reflection about professional practice where teachers can discuss the action research that is collected by colleagues, have conversations about the observations, and make plans for improvement (Gutierez, 2016). Lesson study can be used to impact teaching practices.

Instructional coaching. Instructional coaching is an instructional model that aims for instructional improvement based on specific goals and typically taking place with the teacher or a team of teachers and an instructional coach. According to Sweeney (2010), there are three different models of instructional coaching as a collaborative inquiry to improvement: teacher-centered, relationship-driven, and student-centered. These models are distinctly different in their goals and needs for support, as evidenced in the figure below:

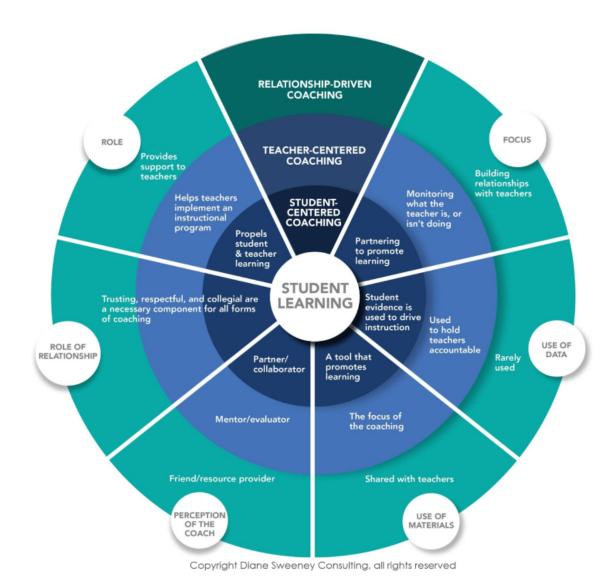


Figure 1.1 Instructional Coaching Models

As a means to target student learning results, student-centered coaching focuses on the importance of setting goals for instruction in collaboration with an instructional coach to impact student learning data (Sweeney & Harris, 2017). This approach typically has several stages for teachers in the figure below (Sweeney & Harris, 2017).

7 Core Practices for Student-Centered Coaching

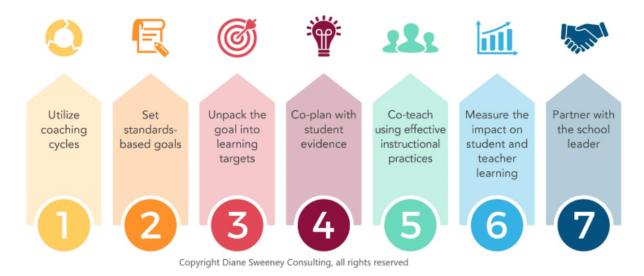


Figure 1.2 Core Practices for Student-Centered Coaching

Student-centered coaching takes place in six- to nine-week cycles where coaching and teaching partnerships delve deeper into student learning data with the intent of improvement, and there is a necessity for intentionality with co-planning, co-teaching, instruction that is modeled and discussed, and consistent dialogue around student improvement hence the need for regular and ongoing formative assessments around intended learning targets (Sweeney & Harris, 2017). As trust and respect are at the heart of student-centered coaching, leaders must be intentional and inclusive when developing structures for student-centered coaching.

Leading a Collaborative Culture

In her dissertation, Williams (2015) implied that leaders have a significant role in establishing a collaborative culture as she found that having principals who promote collegiality and who are trusted is a predictor of effective collaboration in a school setting. Teachers believe

that school leaders must protect meeting times for collaborative work as an integral part of the professional learning time (Lim et al, 2011). Collaborative inquiry may appear differently in various school contexts; however, the overall intention is to involve teachers in job-embedded, reflective discussions about practice with the goal of improvement (Gutierez, 2016).

Collaborative inquiry models require strategic planning for structure and implementation in order to be effective. Transformational leaders help build a collaborative mindset under a shared vision and purpose (Marion & Gonzales, 2014).

Transformational leadership. According to Jones et al. (2013), strong professional learning communities typically have dedicated leaders who are supportive and aligned with the mindset of collaboration and improvement. School leaders must be able to assess the culture of the school to determine the areas to address and to be aware that when leading a culture of change towards collaborative inquiry, one must be aware that it is not a top-down mandate. Transformational change takes place when leaders are brave enough to challenge the status quo, when they emphasize the importance of trust-building and relationship forming, when they collaboratively develop plans for excellence, and when they think of the importance of a collective and shared responsibility for change with a dedicated approach to not only improve themselves, but also the whole institution (Fullan & Kirtman, 2016). It is the responsibility of leaders to set the tone within a school setting that an institution is indeed a place that fosters the growth and development of all stakeholders.

A transformational leader has the responsibility to strive towards ensuring that all stakeholders have a common vision and purpose aimed at professional development and creating a culture of learning because a key characteristic of a professional learning community includes the establishment of a common set of values and purpose behind targeted professional learning

opportunities (Jones et al., 2013). In order to do this, there needs to be shared responsibility for the transfer of skills through application, a collective practice that focuses on the individual and the group, and an environment that is conducive to collaboration and growth (Jones et al., 2013). It is through a leaders' understanding of transformational change that a culture of learning evolves and is sustainable. These leaders would establish a common set of values and purpose, another key characteristic of a culture of learning.

Leaders have a responsibility to establish and sustain a strong professional learning culture of trust and collaboration through transformational leadership practices. Zerbe (2018) found that feedback and consistent dialogue from leadership improves trust within a school setting, and trust is needed, especially in times of school change. When change within an organization occurs, it is possible that the specific change may have an impact on individual teacher self-efficacy. Transformational change occurs within a school context when leaders inspire a vision and purpose that is shared as teachers feel valued when they know they are part of a process where educational leaders prioritize teacher well-being and building teacher capacity (Marion & Gonzales, 2014).

Transformational leaders are highly collaborative and value the input of others while communicating a shared responsibility to fulfill the overall vision and purpose of the organization (Marion & Gonzales, 2014). Mehdinezhad and Arbabi (2015) found that leaders who operated with a highly collaborative leadership style positively impacted teacher self-efficacy within the work setting because individuals are motivated to become active in the solution development and are empowered to collaborate. In her dissertation, Widener (2014) found that, when she as the administrator and researcher implemented transformational change through developing a system of instructional rounds, the changes had a positive impact on

teacher-self-efficacy in the areas of building self-confidence and in feelings of empowerment within a rural context. In a recent study, Gkolia, Koustelios, and Belias (2018) found that leaders who instituted elements of transformational leadership which include: shared purpose, collective goals, individualized support, engaging interactions that challenge individuals to think about their own thoughts or practice, models for excellence, and clear definitions of excellence, teachers improved the beliefs of their capabilities to impact student learning through improved instructional strategies. However, Moolenaar, Sleegers, and Daly (2012) argue that there is a limited and indirect relationship of teacher collective efficacy, based on teacher perception, and actual student learning results. This indirect impact was seen in language arts but not mathematics when examining the learning results (Moolenaar, Sleegers, & Daly, 2012).

Teacher Well-Being and Self-Efficacy

According to Paterson and Grantham (2016), "teaching is considered a high-stress profession," hence the work of a leader and schools should focus on teacher well-being (p. 90). Several studies have linked teacher stress to teacher health problems that include both physical and psychological matters as well as poor performance in the workplace, which ultimately impacts student learning results (Bermejo-Toro, Prieto-Ursúa, & Hernández, 2016). Jennings et al. (2017) emphasized that teachers who are highly stressed or frustrated have a direct impact on student learning results. Bermejo-Toro et al. (2016) explained that teacher well-being is essential in an educational setting, and in order to sustain their health, school leaders should focus on teacher self-efficacy. Paterson and Grantham (2016) elaborated that there are additional themes to focus on regarding well-being: relationships, collaborative experiences in the workplace, and positive understandings about the job. In addition, Dussault, Deaudelin, Royer and Loiselle (1999) found that the single most factor to help individuals overcome the professional isolation

was attributed to being in systems which promote collaboration within the professional setting. Since self-efficacy is linked to teacher well-being and relationships and collaboration improves teacher well-being, as a leader and researcher, there is a need to focus on the integration of collaborative inquiry to measure the impact that participation in student-centered instructional coaching has on international elementary school teachers. These findings could contribute to the discussion on teacher well-being as evidenced by their experiences as a participant with the student-centered coaching model.

Conclusion

In a school context, collaboration is inevitable amongst the adults who work in the setting of a professional community. Philpott and Oates (2017), Battersby and Verdi (2015), and Voelkel and Chrispeels (2017) all emphasized specific characteristics of a professional learning community. These communities focus on improvement and are characterized by professionals who collaborate regularly (Battersy & Verdi, 2015). Margolis, Durbin, and Doring (2017), Richardson (2015), Young, Cavanaugh, and Moloney (2018), and Battersby and Verdi (2015) all emphasized the importance of teacher collaboration as a key characteristic of a culture of learning. However, Fullan and Kirtman (2016) emphasized that collaboration can only occur when there is an underlying theme of trust within the community. In addition, a study by the Bill and Melinda Gates Foundation noted that teachers actually prefer opportunities to collaborate through job-embedded opportunities over all other forms of professional development (Richardson, 2015). All of these studies were instrumental in communicating the key characteristics of a culture of learning.

Three collaborative models were discussed in depth as possibilities for integration within the international school context: instructional rounds, lesson study, and instructional coaching.

Instructional rounds, modeled after medical rounds, include developing a problem to investigate, conducting observations of several teachers with students present, collecting data, and analyzing the data (Teitel, 2014). Lesson studies are more specific, working with a team of teachers who collaboratively plan specific lessons to be observed and discussed with the ultimate goal to improve student learning and are considered to be ongoing (Lewis, 2016). Researchers all emphasized the benefits lesson studies as they have been found to improve teacher content knowledge and pedagogical practice; however, no research was found pertaining to an international school context (Alvine et al., 2007; Gutierez, 2016; and Lim et al., 2011). Instructional coaching models, specifically student-centered coaching, use student learning data to drive the collaborative experiences with the goal of improving student learning (Sweeney & Harris, 2017). To implement student-centered coaching within a school, teachers must have regular and consistent collaboration, which includes co-planning, co-teaching, modeling of lessons, and dialogue around student learning targets (Sweeney, 2010). All three models aim to impact student learning.

Developing sustainable systems and promoting buy-in for school initiatives will take the meticulous planning of transformational leaders and coaches to ensure that the professional learning community is solid and focused on growth and student learning (Jones et al., 2013). The literature review unpacked educational leadership through the lens of transformational leadership, which emphasizes shared responsibility and collective purpose and practice for the overall good of the organization (Jones et al., 2013). In addition, Gkolia et al. (2018) explained that transformational leaders have a shared purpose, shared goals, support for each individual, collaborative opportunities focused on reflective practice, models for excellence, and clear

definitions of excellence. Last, there was a distinct discussion of the importance of leaders prioritizing teacher well-being, which is directly linked to teacher self-efficacy.

After careful analysis, the researcher has identified a gap in the research that discussed the impact of student-centered coaching participation on international school teachers in an international school context. As the primary goal of student-centered coaching is to improve student learning results, rarely is it discussed how the influence of a teacher's own perceptions of and beliefs about of improving student learning. Setting measureable goals is an essential part of student-centered coaching, hence the need to further examine teacher self-efficacy within a student-centered coaching model.

This chapter described the conceptual framework of the study, provided a detailed account of related research, and further elaborated on collaborative inquiry models. The research stemmed from the researcher's interest as an international school leader to study the impact that collaboration in a professional setting has on thoughts and perceptions of self in alignment with one's self-efficacy. When examining teacher self-efficacy, it was important to collect literature in education about collaborative inquiry to align with the context of the study. Through the literature review process, the researcher collected a list of prominent authors in collaboration and self-efficacy. These authors laid the foundation for the researcher's thinking around teacher beliefs in their abilities by providing information on how self-efficacy has been studied in the educational context. In addition, the researcher's personal interests and curiosities as an educational leader became apparent when thinking about measuring teacher self-efficacy within an international school context.

After the research was compiled within the initial review, a theoretical framework was selected to structure the design of the study. The researcher naturally gravitated to a widely

known theory of self-efficacy initially articulated by Albert Bandura. This theory notes four sources of self-efficacy: mastery experiences, physiological and emotional states, vicarious experiences, and verbal persuasion (Bandura, 1997). These four categories served as the basis of the data collected through a case study approach of teacher participation in student-centered coaching, a collaborative model.

As student-centered coaching is an active collaborative experience for teachers, the theory of self-efficacy serves as an excellent framework for the study because the model requires teacher reflection and collaboration around student learning goals. This process of student-centered coaching is directly linked to the four sources of the theory of self-efficacy, focusing on the experiences of the individual through the collaborative inquiry experience. The researcher investigated perceptions of mastery experiences, physiological and emotional states, vicarious experiences, and verbal persuasion, and the overall impact on the teacher participants. In this dissertation, the intervention was a student-centered coaching model that was implemented in a large international school site in Asia with international school elementary teachers as the participants. By implementing an exploratory case study of elementary teachers, teacher self-efficacy was examined through teacher perceptions of self and perceptions of the process on themselves in relation to their ability and belief that they can tailor instruction to meet and impact individual student learning needs. Further chapters will explain the design of the study, the results, the discussion of the results, and the limitations of the study.

CHAPTER THREE

METHODOLOGY

Chapter three communicates the methodology of the study, which examines the impact that student-centered coaching has on teacher self-efficacy, the purpose of study. There is a significant gap in the research on student-centered coaching in an international school context as an underlying problem, and the researcher addresses that gap. Further, it was interesting to examine this gap when relating it to teacher self-efficacy. As previously noted, the study is framed using the theory of self-efficacy by Bandura (1997). When designing the study, careful consideration was made to select a focus and site that was relevant for the researcher and the context in which the researcher works. As the school is currently undergoing a major overhaul of the instructional coaching model employed to improve student learning results and teacher support, the researcher's own context in a large international school in Asia was used for the study. Over a six-week cycle of instructional coaching, participants engaged in student-centered coaching with an instructional coach in the elementary school. The focus of this chapter is to outline the purpose of the study, the research questions that were investigated, further site information and information about the participants, the sampling method selected, the instrumentation and data collection procedures, data analysis, and to offer the limitations, ethical concerns, and limitations of the study.

Purpose of the Study

Throughout the research process for the literature review, there was limited research found on student-centered coaching. In addition, there was a clear absence of studies conducted on self-efficacy in an international school context. As a result, the purpose of this exploratory case study was to examine the impact that student-centered coaching has on teacher self-efficacy

within a large international school in east Asia with approximately 800 students. This study contributes to both the field of research as well as essential data to the school to examine the impact of the student-centered coaching model on teacher self-efficacy.

Research Questions

Researchers Chong and Kong (2012) utilized Bandura's four sources of self-efficacy to frame their study of professional development of Singaporean high schools using the context of lesson study. The researchers found that professional development is extremely effective when it is continuous and embedded with students present (Chong & Kong, 2012). Research questions in this particular study allowed the researcher to determine the exact impact that lesson study, a form of professional development, had on teacher self-efficacy within a Singaporean context. Chong and Kong (2012) found this approach, as well as the context, of particular interest, due to the nature of the researcher's context of international education. The research questions of Chong and Kong (2012) were adapted to examine the specific model of student-centered coaching and will serve as the focus of the study:

- RQ1: How does the student-centered coaching process impact teacher selfefficacy and perceptions of self in a large, international school in east Asia?
- RQ2: How do teachers describe their development of self-efficacy in relation to the student-centered coaching model in a large, international school in east Asia?

Research Design

A qualitative approach was used in this study because of the emphasis on the sources of self-efficacy experienced through the coaching model. A qualitative design allowed for a deep

inquiry into participant experiences and provides an opportunity for researcher interpretation of these experiences under a specific theoretical framework (Bloomberg & Volpe, 2016). Specifically, an exploratory case study approach allowed the researcher to categorize participant responses through the sources of self-efficacy as a result of their participation in a student-centered coaching model (Bloomberg & Volpe, 2016). In addition, with the nature of the research questions of the study, an exploratory approach was appropriate to determine whether student-centered coaching has a significant impact on teacher self-efficacy (Yin, 2018). Through this constructivist and inquiry-based approach, results were gathered that can inform programmatic decisions/ implementation within a specific school (Bloomberg & Volpe, 2016).

Site Information and Population

The site of this study was a large international school in East Asia. This international school has nearly 800 elementary students and 80 teachers. The school is in the second year of implementing a student-centered coaching model for teachers which examines the following process as adapted from the work of Sweeney (2012): the cycle of a co-created student-centered goal, working collaboratively to co-plan, co-teach, and learn together, and to reflect as a result of the process with the overall goal to improve student-learning outcomes. The school employs two instructional coaches who offer approximately five coaching opportunities in a period of six cycles. This allows for each coach to work with approximately 30 teachers per school year. Participants were recruited with a presentation of materials about the study using the distribution of materials related to the study as well as in a faculty meeting consisting of elementary teachers of students in grades kindergarten to grade five in order to introduce the purpose of the study and the voluntary nature.

Sampling Method

The researcher implemented a purposeful sampling approach to the study's site to inform the potential participants who were engaged in student-centered coaching at one particular site (Creswell, 2010). As noted previously, the purpose of the study and requirements for participants were communicated through the weekly faculty bulletin. Volunteers signed up through email. Participants were selected using purposeful homogeneous sampling. Homogeneous characteristics included volunteers, elementary school teachers, and employees at the same international school (Creswell, 2010). The researcher initially planned to select three to five volunteers to engage in the study over a six week coaching cycle. Volunteers were recruited from kindergarten to grade five teachers. Throughout the data collection procedures, participants maintained a weekly reflective journal, participated in two interviews, and collected artifacts to submit which are expanded on below.

Instrumentation and Data Collection Procedures

Participation in professional development with student-centered coaching models was not obligatory at the research site. The plan for the study was to select approximately three to five volunteers who are willing to participate in a six-week student-centered coaching cycle based on student-learning goals. Multiple sources of data was collected which include reflective journals, initial and post interviews, and artifact presentation.

Reflective Journals

Participants reflected throughout the process using a journal, which were submitted as one piece of data through the collection process. Participants were asked to reflect on the various stages of the student-centered coaching model at the school and were informed that journal entries would be used to identify themes from the study. Participants were also encouraged to

note any changes in thinking or changes in practice as a result of participating in the coaching cycle.

Interviews

Interviews were conducted before and after participation in the student-centered coaching cycle with each individual, lasting approximately 45 minutes. Initial interview questions were created by the researcher to gauge each participant's initial thinking about meeting student learning goals and improving self-efficacy through the process of student-centered coaching and to provide qualitative information as a baseline prior to participation (see Appendix A). The initial interviews were semi-structured. Final interview questions were modified from the work of Klassen et al. (2008) and Chong and Kong (2012), who applied their questioning to lesson study, a different collaborative model (see Appendix B). These interviews were also semi-structured and were conducted over a forty-five minute time frame in the school's conference room. All interviews were recorded using the researcher's tablet, which was password protected for confidentiality purposes. The instruments and data collection involved an initial interview and a post-participation interview, both in a semi-structured format, which elicited a variety of responses categorized by the four sources of self-efficacy: mastery experiences, physiological and emotional states, vicarious experiences, and social persuasion (Bandura, 1997).

Artifacts

Participants were asked to provide notes from their collaborative planning sessions throughout the coaching cycle. They were also asked to provide evidence of lesson planning to present to the researcher. These artifacts were used by the researcher in the findings section of chapter four.

Panel Review of Interview Questions

Interview questions designed for the participants were reviewed by an expert panel review consisting of instructional coaches. The purpose of this review was to review the interview protocols, provide a critique of individual questions and to vet all questions prior to the implementation of the study. After review, experts provided feedback on the questions prior to the study, so the researcher could modify where appropriate.

Data Analysis

Triangulation is essential in case study designs to help gain a better understanding of the foci of the study (Bloomberg & Volpe, 2016). The initial interview served as a baseline and starting point for the participant as they declared the student-learning goal that will be the focus of the instructional coaching cycle. The journal was utilized as a tool for the participants to document their learning, their experiences, evidence of student growth, evidence of teacher growth, and notable quotes throughout the process.

The final interview focused on the sources of self-efficacy, specifically, as well as additional reflective questions that allowed for open-ended answers. The interviews were recorded on a personal tablet by the researcher. The recordings were transcribed by the researcher in order to use the participants' reflections in the analysis portion of the study in triangulation with the findings from the participant journals.

The researcher analyzed the transcribed responses and journal entries and were coded to look for identifiable themes that emerge as patterns throughout. Saldaña (2016) describes a code as words or short phrases that are assigned to summarize and categorize the qualitative data collected. Through the analysis process, in vivo coding was used, which includes codes reflecting the actual language of the participants from the interviews and the journals in which

they participate (Saldaña, 2016). Coding took place by hand with no software being utilized for this purpose. In addition, the four sources of self-efficacy served as a priori categories for structural coding, categorizing participant responses into the inquiry topics of mastery experiences, vicarious experiences, verbal persuasion, and emotional and physiological states (Saldaña, 2016). Within these themes, quotes were utilized to support the claims of the researcher based on the participants' experiences. As the study was intentionally designed to be exploratory and voluntary, findings were reported in response to the targeted research questions of the study. Throughout this process, interpretation of the data was subjective. It was essential for the researcher to honestly report what is reflected in the qualitative data and employ methods to ensure credibility and confirmability of the results (Bloomberg & Volpe, 2016). In addition, it was important for participants to be given a copy of the transcripts to verify their meaning.

Limitations of the Research Design

Bloomberg and Volpe (2016) emphasize the importance of revealing limitations within a study. The researcher identified a limitation related to the relationships of the participants to the researcher as a supervising leader in the school, which may present bias challenges. Due to the fact that the study was designed to take place at one site, the findings were solely reflective of one specific site. In addition, the sample size of the participants was limited to at least three in order to allow for an in-depth study of the participants' experience with the student-centered coaching model, while still allowing for multiple perspectives and responses to the posed questions. As the researcher is a member of the leadership team at the site, participants may have been influenced by what they anticipated the researcher wanted to hear rather than an accurate depiction of their growth and experiences through the process. It was important for the researcher and the instructional coaches to emphasize the voluntary nature of the study which is

not evaluative of their job performance but more a tool for professional growth and reflective practice of this growth. The researcher was intentional in ensuring credibility and implementing procedures for member checking discussed in the next section.

Credibility

Bloomberg and Volpe (2016) emphasize the importance of studies being credible and reflective of the participants' words and feelings throughout the study. The researcher aimed to diminish any bias throughout this process despite the study taking place at the researcher's school. By collecting various sources of data through the interviews and in the participant journals, the researcher could better present the participants' experiences (Bloomberg & Volpe, 2016). If any negative experiences became apparent, it was essential for the researcher to report this in the study regardless of the negative implications it may have for the program of the school or the student-centered coaching initiative.

Member checking

In addition, member checking procedures was employed to ensure that participants would be able to review the transcriptions of both the initial and post interviews for accuracy purposes, which also removed any researcher bias. Steps were taken to address any concerns that one may have had as a result of the study. Participants of the study were provided an individual summary of the findings of the study based on the data that was collected from their participation. Any quotes used by the participant were verified for accuracy, and individuals had an opportunity to determine if their words were depicted accurately. This ensured that the participants' responses were truly authentic and valid and allowed for transferability (Bloomberg & Volpe, 2016). In addition, participants had the option of dropping out of the study and were permitted to request that their data be redacted should they have wished. Studies could be duplicated in other

international schools considering the same questions for reliability concerns. In addition, future studies could also be conducted in several schools simultaneously for comparison purposes.

Transferability

In order for individuals to consider if the experience could be transferred to another context, the researcher examined the relationship in terms of transferability. Bloomberg and Volpe (2016) emphasize the importance of helping others find relevance in the study through descriptive and detailed descriptions, especially during a qualitative context. The researcher will aimed to provide in-depth accounts of the participants' thoughts and experiences for transferability purposes.

Dependability

In order to ensure dependability, Bloomberg and Volpe (2016) emphasize the importance of documentation of procedures inclusive of the coding procedures and categories in which the researcher used during the coding process. This ensured consistency of the results and dependability of the qualitative data that was collected in the process. There may be times through the process when inconsistencies were found in the researcher's coding tactics. The researcher kept a reflective journal focused on the process as a reflective component. This journal was not used in the data collection and analysis portion of the study, but it was utilized as a way for the researcher to reflect on his own thoughts and experiences through the process. By ensuring documentation of the coding process as well as integrating the use of a researcher's journal, the researcher was able to accurately report the processes of data collection and analysis (Bloomberg & Volpe, 2016).

Confirmability

Although a qualitative study naturally embeds elements of subjectivity, the researcher aimed to ensure confirmability where the research and report is a true reflection of the results of the study free from biases (Bloomberg & Volpe, 2016). The researcher was responsible for participating in peer debriefing, as highlighted in Bloomberg and Volpe (2016), with a member of the leadership team. This allowed the researcher to reflect and to consider the various ways to look at the qualitative data collected to ensure that researcher bias was not present. In addition and as previously discussed, the researcher's journal promoted continuous reflection through journaling, which was not only helped dependability but also applied to confirmability allowing the researcher to dig deeper into the analysis of the results of the study through a reflective approach (Bloomberg & Volpe, 2016).

Ethical Issues in the Study

Ethical concerns for the use of the researcher's work setting were considered. Four volunteers participated in the study. Participants were recruited via a sign-up format after receiving specific information about the purpose of the study. The researcher administered a consent form which highlighted the rights of the individuals and communicated that the findings were confidentially reported (Bloomberg & Volpe, 2016). Yin (2018) explains the importance of protecting the human participants of the study for ethical purposes. Data and results from the participants who engaged in the study were not used for evaluative measures on the individual's job performance, and this was also communicated to the participants. Further, as noted by Yin (2018), the researcher ensured accurate reporting of participants' words and experiences and ensured confidentiality throughout the process.

The researcher was also open to contrary evidence throughout this process and was intentional in reporting it in order to test the possible bias that he may have had as a leader within the school promoting more ethical practices within the research process (Yin, 2018). The voluntary nature of the study ensured that participation in the study was not obligatory. As student-centered coaching was already a voluntary model in the site location, participation in the study was also voluntary. Individuals had the opportunity to review the results of the study to ensure that their words and experiences were accurately depicted in the final chapter of the study. Throughout this process, it was important to report the results honestly, even if the results were not favorable for reporting the effectiveness of the student-centered coaching model to ensure that an objective approach was taken (Bloomberg & Volpe, 2016). This included ensuring that any negative results were reported despite the potential impact they could have on the program. Overall, ethical research was conducted with the researcher being intentional to ensure no conflicts of interests.

Conclusion

This chapter gave a detailed description of the purpose of the study, the research questions, the research design, data collection, and data analysis. Furthermore, the limitations of the study, a description of the credibility of the study, and ethical issues that could surface throughout the process was highlighted. The researcher used a qualitative, exploratory case study approach to examine two questions centered around the sources of self-efficacy, as noted in Bandura (1997). The sample comprised a homogenous group of elementary teacher participants in the same large, international school as the makeup. This sample included four individuals recruited. The study was introduced via a weekly faculty bulletin, and participants were asked to sign up via email. Participants took part in both the initial and final interviews while

documenting their thoughts, reflections, and experiences in a participation journal throughout the six-week student-centered coaching cycle.

Data analysis began after data collection. The researcher triangulated the qualitative data for commonalities in the data and coded for specific themes through the data analysis process using in-vivo and structural coding. The researcher was aware of the potential biases that he brought to the study as a supervisor within the school's context as well as the participants' hesitation to participate unless it was voluntary. In addition, the researcher was explicit in articulating the purpose in the consent form, in ensuring confidentiality through the process, and in involving the participants in the review of the transcription notes, and in verifying that their words and experiences were accurately reflected when integrating it in the study. The researcher was intentional in addressing limitations and ethical concerns. Chapter four will delve deeper into the findings of the study which were reported in a narrative form to participants and to members of the school community.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

The focus of chapter four is the data analysis and results of the self-efficacy exploratory case study at a large, international school in east Asia. The specific focus of the study was to explore the impact that participation in a student-centered coaching process had on individual teacher self-efficacy. The study addressed the following two research questions:

- RQ1: How does the student-centered coaching process impact teacher self-efficacy and perceptions of self in a large, international school in east Asia?
- RQ2: How do teachers describe their development of self-efficacy in relation to the student-centered coaching model in a large, international school in east Asia?

As the researcher prepared to collect data to address these research questions and to conduct the study, the data collection was delayed due to the Co-Vid 19 outbreak which began in 2020. This outbreak forced the school site to conduct learning in an online format prior to recovening for the new school year in September in person. With the new school year came new challenges as the outbreak led to the research site shifting several employees to cover for other individuals who were unable to get back into the country. For this reason, only one instructional coach was available to conduct the student-centered coaching cycles throughout the duration of the six week period. The researcher also decided to collect the cycle reflection notes co-constructed by the instructional coach and the cycle participant as a form of qualitative data which fulfills the original plan to provide artifacts. Following are the description of the sample, the analysis, the findings, and the summary of the chapter.

Description of the Sample

The researcher recruited participants October, 2020 for the study at a single site, an international school in east Asia. The aim was to gather a purposeful homogeneous sample of homeroom teachers of grades kindergarten to grade five at the single site of the study. Because of the changed schedules and limited time for whole faculty to gather, the researcher sent out a notification in the elementary school's weekly communication to recruit participants who might be interested in the study. The notification ran for two weeks in the school communication document which is sent to all elementary school employees each week throughout the school year. Four individuals agreed to participate in the study. Demographic information of the participants is included in the table below noting the years of experience, and the current grade level of students that the participants were working with when participating in the student-centered coaching cycle.

Table 4.1

Demographic Information of Teacher Participants

Participant	Experience	Current Grade
A	43 years	Kindergarten
В	7 years	Grade Four
С	20 years	Grade Four
D	20 years	Kindergarten

Individuals participated in a six week coaching cycle in collaboration with the instructional coach. This cycle required the teachers to co-determine a student learning goal to address through the instructional cycle. Participants met regularly with the instructional coach to co-plan

for student learning opportunities, co-deliver the lessons to the students in the classroom, and to reflect using the student-centered coaching model. The instructional coach used a results-based coaching tool which designated the role of the teacher, the role of the coach, practices implemented during the student-centered coaching cycle (i.e. goal setting, creating learning targets, analysis of student work, co-teaching, collecting student evidence, collaborative planning, and shared learning) as a guide for reflection and collaboration for the participating teacher. This reflection tool is regularly used at the site and was not created and implemented solely for the purpose of the study. Interviews were conducted before and after participation in the student-centered coaching cycles and participants kept reflection journals and documented the co-created results based coaching tool. Once all of the data were collected, the researcher coded the data for themes as indicated which then led to the analysis and presentation of themes. The analysis portion below addresses each research question individually.

Analysis

The data are presented by each research question. Some overlap in participant information may be included in both sections due to the interelated nature of the questions. As the researcher went through the coding process and began the analysis process, it became clear that it would be more effective and less redundant to introduce each individual through a vignette. This information is then analyzed through the lens of Bandura's sources of self-efficacy. The second section answers research question one, looking specifically at stages of the process which participants felt had a significant impact on their self-efficacy. Information in this section embeds examples from the participants, but is described specifically in relation to the process in the second section.

Teacher Description of Self-Efficacy Development

In this section, the researcher aims to answer the following research question: How do teachers describe their development of self-efficacy in relation to the student-centered coaching model in a large, international school in east Asia?

For research question two, the researcher used structural coding according to the four sources of self efficacy (Bandura, 1997). The theoretical framework of this study allowed the researcher to use a priori categories aligned to Bandura's theory. These four categories include mastery experiences, vicarious experiences, physiological and emotional states, and verbal persuasion. Data were drawn primarily from interview transcripts, reflective journals, and coplanning documents between the instructional coach and the participating teacher. Further, anecdotal participants' statements have been included in the vignettes.

This portion of the data analysis presents the data collected through the lens of vignettes from the participants. Each vignette is followed by the qualitative data that was presented and then coded within the categories. Depending on the data, each source of self-efficacy may not be addressed within specific participants. The researcher reported the data as they were collected ensuring that the information is an accurate depiction of the words and experiences of the participants in the study. As noted previously, these words and experiences were reviewed by each participant prior to integrating the data into this document. Participants had an opportunity to review the direct quotes for accuracy prior to their use in the findings.

Participant A

In an interview prior to participating in the student-centered coaching cycle, participant

A, a kindergarten teacher, had a solid understanding of the purpose of student-centered coaching.

The participant noted her excitement for participation in the cycle because of its focus on

improving student learning and impacting individual professional growth. When discussing what she anticipated from the cycle the participant noted:

I would be the captain of the team; they're [students] my players. We all do things together. But the coach would bring ideas, would ask me to clarify thoughts, would lead me down a path that would take me to question or reflect. A coach, keeping it child-centered, would always keep in mind standards of the curriculum. What is it that we need to achieve? What is it specifically that you know, or don't know, about that child to improve their learning?

This understanding continued as the participant noted that coaching is aligned to her approaches with students because she is goal-oriented, and she believes that it will help her with a path to support individual learning needs. An experienced teacher of 43 years, the participant noted that this learning experience was exciting for her not so much because she feels incapable of meeting learning needs as she sees herself as a "capable, knowledgeable, resourceful, loving, goal-driven" teacher but moreso because "through this work, I will have evidence of myself." The teacher and instructional coach co-constructed the following information below to guide the work that they would be doing together:

Table 4.2

Cycle Focus for Participant A

Standards-Based Goal	Focus for Teacher Learning	Student-Centered Coaching
Students will know the letters and sounds and that sounds represent words.	Teacher will use centers, multisensory opportunities, frontloading of content, practice, and feedback.	Goal-setting, learning targets, analyses of student work, co-teaching, collecting evidence, collaborative
Students will be able to identify initial sounds	practice, and recuback.	planning, shared learning to build knowledge of content and pedagogy

The participant aimed to work in partnership with another adult to improve student learning and to focus on five specific students' foundational skills that will then support their growth in their literacy areas. A description of Participant A's self-efficacy development is described in the following sections:

Mastery Experiences. Participant A described mastery experiences during the student-centered coaching cycle through planning and student success. The opportunity to have another adult to plan lessons with and to challenge her thinking helped the participant decide next steps for the students. These planning sessions challenged the participant to look at things through the coach's perspective and to respond to questions which challenged her to explain her thinking, resulting in the development of student centers to promote student engagement around the learning outcomes. Through the planning sessions, there was a consistent focus on what the children were doing in the classroom and data were provided by the instructional coach for both individuals to engage with. Participant A noted that the instructional coach "allowed me to talk about the kids in depth so that she could then offer assistance." This focus on student learning allowed for a consistent focus on student data and student success through the six week cycle.

As Participant A focused on student results as evidence of success, she described success through the lens of observing that children are enjoying the learning process and that they are engaged. Participant A noted:

The student learning outcomes is what we wanted to achieve. Her working with me, accepting my ideas, willing to talk about my ideas, made our planning go ahead. When that planning went ahead and we set up things for the kids to do, and skills and strategies to teach them, they got those. They became more knowledgeable, more skillful, [and]

student learning progressed. At first, slowly. No. At first, nothing, and then it got down to 'Yes. Now it's beginning to happen, over the cycle.'

The teacher expressed that when students are able to "transfer their knowledge and skills from one part of their learning during the day into a different part of learning during the day, and you're able to see it," it is fabulous. "Fabulous is the feeling I get when I see that or experience children experiencing success." The meticulous planning and the end result of student progress were both examples of mastery opportunities experienced by the participant during the six week cycle.

Vicarious Experiences. There were experiences that occurred during the instructional time of the student-centered coaching cycle which encouraged the participant. This was attributed to student participation. The participant noted that, as students felt more successful in learning the letters of the alphabet and the sounds that they make, they became excited about making the connections between letters and sounds. According to participant A, one of the most influential experiences during this time is when students who were resistant to participate, stated, "choose me, I'll do it. Here's my work." These examples also provided verbal persuasion for the teacher to continue down the path of setting learning goals, collecting evidence of learning and readjusting to meet the individual needs of the students. It was clear through the reflection conversation that the more the students became engaged, the more the teacher knew that the approaches to teaching were becoming effective. Verbal persuasion is discussed below in greater detail.

Physiological and Emotional States. There is limited content in the categories of physiological and emotional states based on the data that were collected. However, one recurring theme for Participant A was excitement. The participant was extremely excited to be selected for

this job-embedded professional development opportunity as well as to have the opportunity to engage in discussion around learning with an instructional coach. Throughout the cycle, this opportunity to have an extra set of eyes, ears, and perspective helped the teacher to continue to reach the targeted students and their needs. Participant A appreciated the opportunity to engage in discussions around learning and to see the progress of her students within the class setting. The excitement from the opportunity transferred to excitement in the classroom for students around learning.

Verbal Persuasion. For Participant A, the role of the coach in providing verbal persuasion played an integral part of her self-efficacy development. From the instructional coach, the verbal persuasion came in the form of promoting reflection and affirming the teacher's beliefs or choices during instructional time. This persuasion came mostly after the evidence collection portion of the student-centered coaching cycle. The instructional coach challenged the participant to look at the students' performance through a different lens by sharing data that were collected around student engagement. Through this process, there was a consistent focus on student learning goals and the overall focus of the instructional coaching cycles. At one point during a dialogue with the instructional coach, the teacher was not so confident about whether the lesson was going well and if the students were getting the information. Through the focused discussions, Participant A stated that the instructional coach noted, "I'm seeing a different class than you." By having evidence to engage in discussion, the participant continued to stay focused on the learning outcomes or goals as evidence of success and continued to encourage the teacher with each lesson. The presence of a coach in the classroom allowed the participant to use an observational lens on student engagement and performance, which ultimately encouraged her to

be more confident that she is indeed creating a classroom environment where students have the opportunities to become successful.

Participant B

Prior to participating in the student-centered coaching cycle, Participant B, a fourth grade teacher, communicated her excitement of having another individual in the classroom to provide feedback on her teaching practices and to offer feedback and strategies for teacher improvement to ultimately impact student learning results. The participant noted that the needs in her current class were so diverse that she found it difficult to determine where to devote most of her energy. In addition to the previous rationale for participating, the participant was eager to engage in a student-centered coaching cycle based on the successes of her previous participation in a cycle in the previous school year. As participating in coaching cycles is voluntary in nature at the school, the participant found success in the previous school year in improving student learning outcomes. As this year brings new challenges and new students, the participant found that it would be most helpful to work collaboratively for yet another job-embedded professional learning opportunity. Participant B expected the following from the experience:

I think as a professional, it's going to make me look at things with a different perspective. Sometimes I can come and look at certain problems, [that] I immediately just want to solve. I'm the type of person where I like to solve problems, and I just like to get started immediately. And, I think doing the coaching cycle will give me an opportunity to kind of step back and look at more of the big picture and as more of a high level on how to go about supporting in more strategic ways in that sense. Instead of fighting fires, getting a big, overall, overarching understanding of what I can do to help students on a more day-to-day basis.

Table 4.3 below highlights the standards-based goal, focus for teacher learning, and student-centered coaching cycle in which the participant focused on when working collaboratively with the instructional coach.

Table 4.3

Cycle Focus for Participant B

Standards-Based Goal Fo	ocus for Teacher Learning	Student-Centered Coaching
Students will engage and	Teacher will run small	Goal-setting, learning
respond to teaching point and	reading groups, use think	targets, analyses of student
independent work.	alouds, use a modified	work, co-teaching, collecting
	jigsaw method, integrate	evidence, collaborative
Students will be able to use new	stations and organizers, and	planning, shared learning to
strategies in new texts at their	use leveled texts for student	build knowledge of content
stretech level.	learning.	and pedagogy

A description of Participant B's self-efficacy development is described in the following sections:

Mastery Experiences. Participant B spoke freely about the opportunity to impact student learning data through participating in an instructional coaching cycle. The teacher noted that, as she was asked to focus on student learning goals, it helped her measure her own success. Throughout the cycle, "it made me feel that what I was doing was effective, and it made me more empowered to go out of my comfort zone." The participant elaborated further on comfort zone by discussing her thinking process as she aimed to implement guided reading groups, independent work opportunities, and opportunities to confer individually with students by noting:

I wasn't sure if my class was ready for guided reading. I mean, they are ready for guided reading, but I wasn't sure as if the other class can manage if the rest of the students who were not doing guided reading would stay on task. But, after looking at the data and talking with the coach, we decided that we would try that out. And, there was one session where the two of us did a guided reading group and all the rest of the class were

independently reading and doing other activities. It seemed to be quite effective and the students who were doing the guided reading were engaged, as well as the students who weren't doing the guided reading were engaged. So, that showed me that my class is able to do that and it gave me the confidence to think...gave me the confidence to want to continue doing it on a weekly basis.

By seeing that students were able to be successful in the designed learning experiences which were co-created, the teacher became more confident in her abilities to implement and sustain such a structure in order to promote the development of collaborative student learning groups through guided reading and through opportunities to confer with students.

Vicarious Experiences. Vicarious experiences in the form of student achievement based on formative assessment data continued to encourage the teacher as she worked through the student-centered coaching cycle. These data were collected during the co-teaching component of the cycle. The participant provided an example of students who were asked to consolidate their learning by writing book summaries. This served as a check for understanding as well as an opportunity for students to show growth in vocabulary development. Overall, the opportunity to co-develop checks for understanding in the form of formative assessments and having the opportunity to see where students were in their learning journey in relation to the learning outcomes provided a clearer picture for the participant and instructional coach to adjust accordingly. This appeared to be a pleasant surprise for the participant as she worked through the cycle.

Physiological and Emotional States. After participating in the student-centered coaching cycle, Participant B noted that her experience was positive and improved her confidence. Although lacking in the description of specific physiological and emotional states in

great detail, the participant continued to discuss ways that she has become more empowered. By having success with student engagement, the teacher was able to set up a structure in which she could target specific academic areas for improvement. In addition, by recognizing that the center structure could work effectively for grade four students, the teacher became more and more confident in her ability to impact student learning results. The teacher noted that prior to participating, she felt most comfortable with one to one student conferring. However, after seeing students participate successfully in small groups, it improved her confidence for not only implementing the structure but also for grouping according to targeted reading goals resulting in the statement "I can do this on a regular basis. I don't really need another adult in the room to do this."

Verbal Persuasion. The participant was encouraged throughout the six week cycle based on excitement generated and communicated by the students as they had the opportunity to engage in a different literacy structure which implemented activities for centers as well as opportunities to work collaboratively with their peers in guided reading groups. By hearing the student excitement around centers, the teacher became more confident that the approach was reaching her students based on their excitement for learning. Such statements such as "Yay! We have centers!" and "we enjoy doing this" was reaffirming with each stage of the implementation. When the instructional coach was not present in the classroom, the teacher got positive feedback from her students about liking the structure of the learning. Participant B realized that "Wow, I'm able to this without her in the room" so she continued to design such learning experiences to promote student engagement, ultimately showing how her self-efficacy was impacted as a result of participating in the student-centered coaching cycle.

Participant C

Participant C, a fourth grade teacher, expressed her excitement for partnering with an instructional coach. In previous places of employment, she had participated in other instructional coaching models, but she had limited experience with a student-centered coaching, noting the difference being the emphasis on student learning data. Her desire to participate in an additional coaching cycle this school year with new students stemmed from the opportunity to improve student learning results and to promote success for individual students. When reflecting on what to anticipate from participating in a student-centered coaching cycle this year, she stated:

It's more about looking at the success of the student, as opposed to the success of the individual teacher. In terms of that, part of that is, sometimes I just enjoy brainstorming with other people and sometimes it's just the validation that, 'Okay, I am doing that and that actually is working.' And so, when people suggest different things, we can revisit things that I've done. I think part of it is confidence building as well.

Table 4 below highlights the standards-based goal, focus for teacher learning, and student-centered coaching cycle in which the participant focused on when working collaboratively with the instructional coach.

Table 4.4

Cycle Focus for Participant C

Standards- Foc Based Goal	us for Teacher Learning	Student-Centered Coaching
By differentiating and prioritizing, students will able to engage and demonstrate the skills/strategies taught.	be books for guided practice, groups, and strategies to support the standards-based goal.	Goal-setting, learning targets, analyses of student work, coteaching, collecting evidence, collaborative planning, shared learning to build knowledge of content and pedagogy

A description of Participant C's self-efficacy development is described in the following sections:

Mastery Experiences. The opportunity to have one on one reflective conversations with the instructional coach allowed Participant C to become more confident. Through the experiences, she realized that she actually had the solutions and the teaching experiences to meet the individual needs for learning. The questioning tactics of the instructional coach allowed the participant to think deeply about what she would do next to address student needs based on observations from the instructional coach or student learning data. This realization helped the participant become more confident in her abilities based on her understanding that she does know what to do to meet the needs of her learning. The think aloud protocols that the instructional coach led with the participant allowed for her to draw on prior experiences and strategies and make them stronger in collaboration with the instructional coach.

Vicarious Experiences. One of the biggest realizations of the participant was noted previously in the mastery experiences section, that the participant had the strategies and experiences all along to meet the needs of her learners. In terms of vicarious experiences specifically, there was a gap in the data collected to code information in this manner. However, the participant stated that she wanted to experience more modeling to further boost her confidence in her ability to address student learning needs. The participant explained that she would have liked to observe the instructional coach teach more in the classroom in the form of modeling small reading groups of various levels. This might have created additional vicarious experiences to impact the teacher's thinking and practice. This modeling would have also helped her set up guided reading centers and structures for students to learning both independently and collaboratively with their peers. The participant noted:

Well, I always question if I'm doing my guided reading centers in a way that is effective for every single learner. And so for me, I think there would have just been some more validation if I'm doing it right, because I still don't know. Guided reading can be done in so many ways. And, so I'm quite confident with my guided reading, with my sort of lower to middle kids, but I'm not necessarily knowing that I'm engaging my higher learners in my guided reading activites. So, I think just seeing someone do it in a different way, may have boosted my confidence a little bit.

Physiological and Emotional States. Participant C noted that participation in the cycle brought affirmation and validation by stating that it was a "confidence booster in that sense that a lot of times, I think for teachers, that we have something in our toolkit and maybe we've forgotten about, and we haven't used it in a few years." This opportunity to reflect brought great excitement as the participant drew out prior experiences that were successful with students.

Through the collaborative planning sessions and conversations with the instructional coach, the participant was able to think about things that she had not thought of for quite awhile, bringing validation and encouragement to use her "toolkit." In addition to validation, the participant also noted how proud she was through the process. With each session, she was able to see the students be successful with the targeted learning goals, and that in itself was evidence that the planning and the instruction was successful.

Verbal Persuasion. Verbal persuasion was in the form of discussing student learning data. The participant noted that the focus was on four specific students. Feedback from the instructional coach was in the form of what was happening, whether the students achieved their desired learning goal for the day, and reflecting on what can be done to improve the learning experience next time. Success in this cycle was measured by what the students were able to

achieve, as provided by evidence of their learning and providing feedback to the participant. The participant noted that what was really successful was "having a second pair of eyes that could look at it through the same lens as me." This seemed to influence the teacher's confidence as it brought reassurance and validation that her approaches to teaching were directly impacting student learning results.

Participant D

Participant D aimed to foster a love for reading in her kindergarten classroom by allowing individuals to engage with a book independently though the workshop model, a model already introduced at the school. After reflecting on what to anticipate from participating in a student-centered coaching cycle this year, the participant stated:

I think it has a great impact on student learning and student results...I mean, I just look at the data that I would get from a formative assessment and be like, 'Okay, we can move on. Or did we reach that goal? Can we move on and start another goal? So just having that extra teacher in the classroom as well...

Table 4.5 below highlights the standards-based goal, focus for teacher learning, and student-centered coaching cycle in which the participant focused on when working collaboratively with the instructional coach.

Table 4.5

Cycle Focus for Participant D

Standards-Based Goal	Focus for Teacher Learning	Student-Centered Coaching
Students will engage with books independently through implementation of the workshop structure.	Teacher will use parallel teaching, modeling, feedback, sharing, and routines to help students achieve the goal.	Goal-setting, learning targets, analyses of student work, coteaching, collecting evidence, collaborative planning, shared learning to build knowledge of content and pedagogy

A description of Participant D's self-efficacy development is described in the following sections.

Mastery Experiences. The participant had mastery experiences at the conclusion of the cycle through her own observations of student engagement and behavior as noted below:

I guess one of my stories would be one session, we had assigned independent reading time with partners. With partners and private, it's called private reading or independent reading, and if they read by themselves and then they read with a partner. I could see everyone reading from cover to cover the mini-lessons that we taught, reading from cover to cover, and if it was with partner, sitting elbow to elbow, knee to knee with their partners. The class was quiet. There was some noise, there was some buzz, but it wasn't chaotic noise. Everybody was looking at their books and doing independent reading. I was looking at my coach. I said, 'This is what I wanted. This is what I wanted to achieve from my cycle with you.' I needed support to get this going.

By putting the workshop model in place, and engaging students in exciting activities in which they could use different characters' voices to retell the story, the teacher created more exciting and joyful learning experiences hence impacting the instructional practice of the participant. Prior to the coaching cycle, the participant felt like her kindergarten students were not as excited as she would have hoped for them to be about engaging with reading materials and she found it challenging to promote excitement in the classroom for her diverse learners.

Implementing ideas in collaboration with the instructional coach, setting up routines and procedures for learning, and allowing students to be creative by reenacting the stories during partner reading allowed students to be highly engaged and excited. This in turn excited the participant as she believed more and more that she was reaching her students as a result of the observed evidence. The participant noted that as a result, she would have not done anything

differently during the cycle as she was able to make learning joyful and to accomplish what she sought out to accomplish initially.

Vicarious Experiences. Improved confidence in abilities occurred once the teacher was able to see that routines and procedures for readers' workshop were in place. The teacher observed the students on several occurrences modeling desired reading behaviors and engaging productively during the class time. For this reason, the teacher informed the instructional coach that she thought the students were ready based on her own observations. Having this realization allowed the teacher to feel more confident in her abilities and in the process. In addition, during sharing time the teacher noted that student sharing became more lively and student engagement increased significantly. An example is described here:

At the end of the sessions, it also warms my heart when they're like, "can I share?" Raising their hands, 'can I share my favorite page from the book that I read?' That kind of response from the children really made me feel like this was a great cycle. I told my coach, 'I'm so glad I learned so much from you.' We worked together; we worked it out because I can see the success in the children.

Physiological and Emotional States. There were limited data collected in this area; however, it is important to note that Participant D was very pleased with the progress of her students as a result of participating in the student-centered coaching cycle. In addition, she particularly noted that she felt safe going through the process. The ability to have a trusting working relationship without judgement from the instructional coach allowed for her to try out new strategies for teaching. Through modeling and parallel teaching, the participant was able to feel more comfortable, and it was because of the supportive nature of the coach through the

process allowing for the participant to implement new strategies that she may not have been open to implementing otherwise.

Verbal Persuasion. Verbal feedback served as persuasion for Participant D. It is through the feedback from the instructional coach that the teacher was able to determine which learners were being responsive to the strategies that were being implemented and to further identify areas for improvement. The participant received data verbally that was collected through observation. This allowed for the teacher to see what impact the strategies were having on student engagement. One of the biggest areas noted by the participant is the feedback of students who were not working particularly well together. In collaboration with the coach, the participant was able to determine partnerships for learning in which the participant said did "help with the success, my success, and the students' success as well."

The participant also received feedback from the students in the classroom. During reading time, the students would ask if the instructional coach was coming, and they continually asked if they were doing partnered reading. Students also tended to want to share out what they read with their partners and were more excited after the activities were implemented. Students would sometimes remind the participant to allow them to share their thinking, and that is when she realized that the students are really understanding the motivation behind the coaching cycle, to engage them and to make learning exciting and fun. Feedback from the coach and the students served as important pieces to impact the participant's belief that participation in the cycle is impacting student learning results.

Findings

The researcher examined the results through the sources of self-efficacy identified by Albert Bandura. These sources include mastery experiences, vicarious experiences, verbal persusasion and physiological and emotional states (Bandura, 1997). Findings are reported within each category below:

Mastery Experiences

After participating in the student-centered coaching cycle, three participants noted that their observations of student success helped them determine that they themselves as teachers were successful. Participant A explained that student enjoyment and the student's ability to transfer their knowledge and skills in context helped her to stay focused as a professional on the student success in which she was able to determine her own effectiveness. Further, Participant B highlighted that she could tell that she was reaching the students based on their own excitement to participate in the learning centers that she co-designed with the instructional coach. As students were able to stay focused on the tasks at hand, she was able to measure her own success due to the focus from the students. Participant D noted that the more the students got excited about the learning opportunities and increased their engagement, the more she became excited about planning the learning activities in collaboration with the coach. With each week, the participant observed an improvement in student engagement and behavior as well as their ability to follow routines and procedures during the reading instruction. Last, Participant C did not mention specifically mastery through the lens of the students; however, she did explain that participating in the student-centered coaching cycle helped her realize that she had the solutions the whole time. As she participated in reflective discussions with the instructional coach, the participant was able to respond to open-ended questions posed by the coach which allowed her to draw from her previous experiences. This realization that she had the answers within helped increase her confidence in impacting student learning outcomes. All four participants developed their self efficacy in the area of mastery experiences.

Vicarious Experiences

Three of the participants shared vicarious experiences again through the lens of student evidence. Both Participant A and Participant D shared that when their students began sharing their learning, that is when they knew that were impacting student learning. Both participants noted that their students gained more confidence to share as a result of the learning opportunities and practice that they were having within this classroom. These learning activities were coplanned and implemented by the participating teacher and the instructional coach. Participant B was pleasantly surprised on one of the formative assessment tasks which was co-designed and administered with the instructional coach. With regards to the targeted students, the participant noted that she saw a significant improvement in vocabulary application within their assigned book summaries. This was as a result of participating in the learning activities created and implementing with the instructional coach. With regards to Participant C, the participant did not seem to note any vicarious experiences as a result of participating in a student-centered coaching cycle; however, the participant did articulate what she would have liked more of during the opportunity. Participant C stated that she would have benefitted from more opportunities to watch the instructional coach model specific instructional strategies. The participant noted that modeling would have helped her better understand if she was implementing the structures properly. Overall, participants A, B, and D all had vicarious experiences as a result of participating in student-centered coaching.

Physiological and Emotional States

All four participants referenced a state within this category; however, their responses differed. Participant A noted that her continued state was excitement: excitement for being selected to participate in the study, excitement for having the opportunity to work with an

instructional coach, an excitement for focusing on student learning goals as the lens for improvement, and overall, she saw results in her students. Participant B referenced having improved confidence in herself. After participating in the cycle, she felt more empowered to implement small group instruction and to take risks out of her usual one-on-one conferencing strategies. The participant came to the realization that she did not need another adult in the room to implement small group instruction as she became more confident in her own abilities to impact student learning outcomes. Participant C referenced participating in the cycle as a "confidence booster." As previously noted, this participant was excited to realize that she had the strategies all along. Participation in the cycle validated what she already knew and helped her draw from her previous experiences. As she saw students progress, she responded by saying she was proud. Last, participant D referenced her excitement to work with an instructional coach. She referenced that she trusted the coach. This helped her feel safe and supported as she worked collaboratively to impact student learning goals. This participant noted that she was sad when the coaching cycle was over because she had grown accustomed to working in such a great partnership and saw the impact that it had on her students and the routines and procedures in the classroom. All four participants were able to describe an impact on their self-efficacy through the lens of physiological and emotional states.

Verbal Persuasion

All four participants in the exploratory case study described verbal persuasion impacting self-efficacy. For participants A and C, verbal persuasion came in the form of the interactions with the instructional coach. These participants focused on the feedback given from the coach during the planning sessions. The feedback focused on which students were responding to the strategies implemented and helped teachers reflect on next steps to meet their individual needs.

Participant B focused on student excitement as verbal persuasion. The teacher was able to determine that the planning was effective when the students would tell her that they were excited about literacy centers. By seeing student excitement and an increase in student engagement, it was validating for participant B. Last, Participant D noted both the feedback from the coach and the feedback from the students as helping her gain more confidence that she is helping student reach their desired goals.

Impact of Process on Teacher Self-Efficacy

The student-centered coaching process is more commonly referred to as a cycle which takes place over a period of time. As previously noted, the cycle aims for participating teachers to work collaboratively with the instructional coach to promote student progress towards a learning-focused student goal. The focus of this section is to report holistic findings from all four participants on the process itself highlighting the essential components that teachers note impacted their self-efficacy and perceptions of self. The researcher used in Vivo coding to identify key stages of the student-centered coaching process which had a specific impact on teacher self-efficacy as described by the participating teachers aimed at answering the following research question: How does the student-centered coaching process impact teacher self-efficacy and perceptions of self in a large, international school in east Asia? Major themes within the process that seemed to significantly impact teacher self-efficacy include the partnership with the coach and the focus on student success.

Partnership with the Coach. With regards to the process impacting teacher self-efficacy and perceptions of self, it became very clear that the role of the coach was crucial in determining whether the student-centered coaching cycle was successful in ensuring success according to student learning data. A participant described the instructional coach as like-

minded, easy going, skilled with paraphrasing thoughts, reaffirming, well-informed, and patient. This demeanor was observed as the coach met weekly with the participant. In addition, it also became apparent that the partnership with the coach further impacted teacher self-efficacy. Participants in the study valued the opportunity to work with the experienced instructional coach as they were provided examples of best practices with teaching, opportunities to engage in conversations around student learning outcomes, reflecting collaboratively with the instructional coach based on student learning data, and responding to questions that challenged the teachers to think about their next steps. The documentation of this process which was co-created by the teacher and instructional coach was a useful tool for teachers to see where they were in the process and to forward plan with the student learning goals in mind. The documentation kept the focus on the learning goals.

Further in the six week cycle, it became very clear that the presence of the coach helped participants by having another partner to engage in conversations about the learning in the classroom. Participant A noted that due to the nature of student-centered coaching, it was natural that the partnership would be student-focused. The focus on a shared learning goal for students allowed the teacher to have a focus during the planning meetings. These planning meetings which took place weekly with the instructional coach brought affirmation for the participants and opportunities for them to engage in rich discussions around student learning. Participant D noted that she felt the opportunity was so successful in helping her provide structure and routines for reading and having that extra voice and presence in the classroom that she cried when it was over. Participant A noted that the coach's presence and like-minded approach to wanting students to be successful was a natural partnership. She emphasized that the coach's role was an

integral component in ensuring professional growth of the teacher and growth in student learning outcomes.

Focus on Student Success. All four participants noted that the opportunity to engage in job-embedded professional learning through a student-centered coaching cycle had the potential to be effective because of the focus on student success. Prior to engaging, all four participants understood that student-centered coaching uses the lens of student data to drive the discussions. This focus on student success led each participant to feel successful through the process because they were able to see the evidence that their planning and conversations with the coach were impacting the student learning goals. Participant C noted that her confidence grew as she saw that the implementation of the planning was effective in the classroom. Participant A and D found that student engagement improved as students who were not regularly attentive were more attentive during their reading class. Last, Participant B reiterated that building a structure for reading centers and guided reading in collaboration with the coach allowed her to realize that she was proficient enough to continue with the structure as she saw her student engagement improve as well as their excitement for the interactive approaches that she and the instructional coach implemented. Teachers became more excited throughout the coaching because they were able to see the benefits of their participation in the cycle. Participant A explained that a student-centered coaching cycle is goal-oriented which allows for a joint focus, a talking point, and a measurable piece which ultimately drives the learning experience for all.

When analyzing research question one as well as looking at findings above, it is apparent that the focus on student success within the stages of the student-centered coaching cycle and the partnership with the coach stood out as having the most significant impact on teacher self-efficacy. These key components of the process helped individuals stay focused on the overall

objectives of teaching and learning while also realizing the impact that another individual could have on one's own thinking and professional growth. Overall, participants were able to share their experiences throughout the coaching cycle as well as their perceptions of self. By classifying responses into the sources of self-efficacy, the researcher was able to determine that participating in a student-centered coaching cycle can impact teacher self-efficacy. By partnering with an experienced coach, by focusing on student learning targets and student success, and by drawing on previous experiences, participants were able to have a boost of confidence or a validation of strengths and prior experiences through the process.

Summary of Chapter Four

Chapter four reported on the data that was collected at a large, international school in Asia. The focus of the study was the impact that participation in a student-centered coaching cycle had on teacher self-efficacy. This chapter introduced four vignettes of participating teachers at the specific site. Participants of the study were two grade four teachers and two kindergarten teachers. Data were coded according to the sources of self efficacy which include mastery experiences, vicarious experiences, physiological and emotional states, and verbal persuasion (Bandura, 1997). Further, the researcher elaborated on specific components of the process which impacted teacher self-efficacy as describing by the participants. These areas included the partnership with the coach, the collaborative planning sessions, and the modeling of teaching practices. Findings focused on the positive impact of partnering with an instructional coach as well as the focus on student learning and success. Participant perceptions and experiences were shared through the lens of mastery experiences, vicarious experiences, physiological and emotional states, and verbal persuasion, all sources of self-efficacy. All four participants were able to describe how their self-efficacy developed in the categories of mastery

experiences, physiological and emotional states, and verbal persuasion. Three of the four participants described the impact of their vicarious experiences. Chapter five will discuss the results in relation to the literature, identify any limitations in the study, discuss implications of the results for practice and make recommendations for further research.

CHAPTER FIVE

CONCLUSIONS AND DISCUSSION

The purpose of this study was to determine the impact that participation in student-centered coaching had on teacher self-efficacy. The researcher conducted this study at a large, international school in east Asia with nearly 800 students in the elementary school. Participation was limited to four teachers who represented a homogeneous sampling sharing commonalities as elementary teachers. Two of the exploratory case study participants were kindergarten teachers and two participants taught fourth grade. This took place over a six week period where each participant worked individually with an instructional coach through a job-embedded professional growth model known as student-centered coaching. Participation in this study was voluntary in nature. In the study, interviews of each participant were conducted prior to participating in the six week coaching cycle and after. Interviews were recorded, transcribed, coded for themes, and then analyzed to answer the following research questions:

- RQ1: How does the student-centered coaching process impact teacher selfefficacy and perceptions of self in a large, international school in east Asia?
- RQ2: How do teachers describe their development of self-efficacy in relation to the student-centered coaching model in a large, international school in east Asia?

Discussion of the Results

As an educational leader and international school educator, the researcher has always had an interest in professional development. Through his experiences both as a teacher and a school administrator, there have been several job-embedded opportunities that have helped the

reserarcher develop his practice. In addition, the researcher's interest in self-efficacy guided the initial thinking about potential research topics. As the researcher's school and place of employment was newly implementing student-centered coaching as a job-embedded professional learning opportunity for teachers, the researcher was especially interested in whether participation in a coaching cycle would impact a teacher's self-efficacy. It was hoped that research from this study could be shared with the school population as a report on whether teachers were impacted personally. The researcher used the sources of self-efficacy highlighted by Bandura (1997) as a framework for the study and carefully modified questions from Chong and Kong (2012) to relate to student-centered coaching as well as created new questions about the process of the coaching cycles in hopes of gathering vital information about teacher self-efficacy. After analyzing the results, the researcher drew conclusions about both research questions with relation to self-efficacy.

Impact of Process on Teacher Self-Efficacy

Research question one asked: How does the student-centered coaching process impact teacher self-efficacy and perceptions of self in a large, international school in east Asia?

Regarding question one, there were two factors that were commonly noted by participants in the study regarding how the process impacted teacher self-efficacy. These themes centered around the partnership with the coach and the focus on student success as key contributors to the participants' self-efficacy. After interviewing participants, the researcher concluded that the instructional coach was instrumental during the student-centered coaching cycle. Participant A described the characteristics of the coach as reaffirming, patient, and thoughtful. With the coach's presence, participants were able to have another professional in the room collecting data with the students present. This job-embedded professional development opportunity continued

for participants with the weekly meetings that took place asking teachers to set goals and monitor according to student-learning data. The coach shared observations and engaged the participants in thought-provoking discussions around student learning data. By having common goals, participants were able to focus on whether they were successful based on the students' success. The presence of the instructional coach provided that lens.

Further elaborating, the second theme which was noted in the interviews around the student-centered coaching process was the focus on student success. As noted previously, participants were able to see that they were reaching students and the learning goals through the discussions around student data. This also related to student engagement. Through the process, the emphasis on student success allowed teachers to stay focused on the tasks at hand. By having a shared goal, teachers were able to focus their attention on developing strategies in collaboration with the instructional coach and implementing them in the classroom in partnership with the coach. All four participants found that the emphasis on student success allowed them to be successful in their student-centered coaching cycle. Overall, participants either noted a boost in confidence after seeing student success according to the learning goals or validation that they were on the right track with regards to providing learning experiences to meet the individual needs of the learner. Both the presence of the instructional coach and the focus on student success were the two themes that emerged regarding how the process impacted teacher self-efficacy.

A finding that the researcher identified after conducting the study also related to the coach and was not included in previous chapters. This was observed after the study was conducted within the site regarding peer support and support from the instructional coach. It was clear from the researcher who also works at the site that participants were able to take more risks

and be more vulnerable with the instructional coach who does not regularly attend grade level collaborative meetings on a consistent basis and is not regularly involved in the homeroom teacher planning of units of study. The coach's support differed from the support that teachers regularly provide for each other in that they were able to seek out guidance on specific teaching strategies to improve student outcomes. Further, it is important to note that participants also had an opportunity to share their learning from participating in the coaching cycle with their grade level teaching teams.

Teacher Description of Self-Efficacy Development

Research question two asked: How do teachers describe their development of selfefficacy in relation to the student-centered coaching model in a large, international school in east
Asia. The researcher reported how teachers described their development of self-efficacy
throughout the process by using the sources of self-efficacy described by Bandura (1997). By
categorizing responses through the coding process into mastery experiences, vicarious
experiences, verbal persuasion, and physiological and emotional states, the researcher was able
to see how participation impacted teacher perceptions of themselves and of their own selfefficacy. The following is a summary of the findings within this study:

Mastery Experiences. Three of the four participants discussed that by observing student success, they were able to determine that they too were successful which was also previously highlighted in the response to question one. This focus on student results is the focal point of student-centered coaching cycles. These participants also discussed that they saw an increase in student engagement from students who were not previously engaged in the learning. By seeing the excitement of students about the learning activities, teachers were able to see that the work of the coaching cycle planning and implementation was indeed successful. One of the four

participants noted that participating in a student-centered coaching cycle helped her realize that she had the answers the whole time. By participating in weekly reflective discussions with the instructional coach based on student learning data, she was able to draw from previous experiences and ultimately feel more confident that she was impacting student learning.

Vicarious Experiences. Student evidence was the focal point again within this particular source of self-efficacy for three of the participants. For three of the participants, these experiences were in the form of formative assessment written data or observation of student participant. Two participants noted that, as students became more confident in their abilities, they began to share more. One participant noted that she wished she would have had vicarious experiences in the area of modeling as she questioned whether she was implementing guided reading properly and would have liked to have seen more from the instructional coach in the form of modeling guided reading sessions.

Physiological and Emotional States. All four participants were able to share how they were feeling through the process. Participant A and D referenced feeling excited when they observed that students were making progress toward their learning goals and when students participated more in class discussions. Participant B felt more empowered to implement the strategies that she learned with the instructional coach in a more independent manner because she was able to see that the students were excited about learning. Participant C experienced great pride and validation. As previously noted, by participating in the student-centered coaching cycle, the participant was able to feel validated that she had specific strategies to implement all along based on her previous training and experiences. The reflective nature of the debriefs and planning meetings with the coach allowed for the participant to arrive at this conclusion. All four

participants were influenced by this particular source of self-efficacy as a result of participating in a student-centered coaching cycle.

Verbal Persuasion. Verbal persuasion either came from the instructional coach or from the students themselves for the participants in this study. As previously described in research question one, the partnership with the instructional coach was instrumental in impacting teacher self-efficacy. This partnership was supportive in nature and focused on a shared goal. Participants found the feedback from the instructional coach helpful as well as the sharing of data impactful for examining student learning progress. Further, some of the participants were persuaded through student excitement. Seeing the students excited about the learning activities that were being implemented further encouraged the teachers, who discussed this outcome building their confidence that they were impacting student learning and engagement.

Discussion of the Results in Relation to the Literature

Information from the conceptual framework and the literature review introduced collaborative inquiry professional development models such as instructional rounds, lesson study, and instructional coaching. These models serve as opportunities for teachers to engage in job-embedded professional learning opportunities as a means for professional growth. Within the literature review, the researcher indicated that characteristics of a learning culture include trust, collaboration, and a sense of belonging. This is directly connected to the findings of this study where participants noted that the partnership of the coach was essential and impactful on their own professional growth and sense of self. Further, the research literature indicated that high teacher self-efficacy correlated to higher student performance as indicated by Mojavezi and Tamiz (2012) and where improved instructional practices were noted in teachers with higher self efficacy by Holzberger, Philipp, and Kunter (2013). The instructional coach provided an

atmosphere where individuals felt like they could take risks without judgment, participate in reflective dialogues around student learning, and engage in collaborative discussions and planning sessions all conducted through the lens of improving student learning results.

Based on the responses of participants in sharing the impact that participation had on their own self-efficacy, the researcher agrees with Richardson (2015) who explained that teachers prefer job-embedded learning opportunities for professional growth. One reason may be attributed to the findings within this study where participants noted that reflective conversations with the instructional coach about student observations and data helped validate their thinking, affirmed their beliefs, and extracted previous experiences in which they could apply in context. The student-centered coaching model allowed researchers to have opportunities to grow professionally while keeping student learning as the focus of the process. By seeing student progress according to the designated learning goals, an increase in student engagement in class discussions, and excited responses about guided reading and other learning activities implemented as a result of co-planning with the instructional coach, participants found that they were more successful as a result of seeing student responses and observing student success.

Limitations

There are a few limitations of this study noted by the researcher. As previously communicated, this study took place in a single site and included four participants. Participant numbers were limited due to the exploratory case study design of the study. Qualitative data was collected based on participant perceptions and experiences while participating in the study. These realities may or may not have made an impact on the results. Further, one instructional coach was responsible for leading the student-centered coaching. This instructional coach was already employed at the school and had prior experience with the teachers in a variety of

settings. As the coach was already seen as a credible source, it might be beneficial to conduct further studies with instructional coaches that may not have prior experience interacting with participants in a professional setting. Last, the researcher is a supervising administrator within the building. Although the researcher took significant steps to communicate that participating in this study did not connect to job performance, some participants may have felt restricted to fully respond to questions posed. Despite the limitations discussed, the researcher ensured that the participant's words and perceptions were accurately depicted and participants had a chance to review the transcribed notes prior to beginning the analysis process.

Implication of the Results for Practice

The student-centered coaching model has provided job-embedded professional learning opportunities for teachers of the site in a large, international school in east Asia. The four participants of the study noted some important information that impacted their own thinking and their own experiences. As the focus of the coaching cycles is on student learning and student growth, participants found the model successful as it kept common goals at the center of the planning and reflection sessions. By emphasizing the importance of impacting student learning results and using data to drive discussions, teachers were able to use student needs as the lens for improvement not only for students but also for themselves. All four participants noted that as they began to see their students be more successful, they became more confident that what they were implementing was successful. With students present through this professional growth model, participants were able to use observational data and their own experiences with the students as a measure of impact. For this reason, there was significant evidence that participation in a student-centered coaching cycle as a job-embedded professional growth opportunity positively impacted teacher self-efficacy. Results of this study suggest that schools should

consider utilizing the student-centered coaching model for professional growth because teachers felt more successful as they were able to use student data and observation as a measure for success. Further, as the role of the coach was clearly communicated as essential for teachers, schools should ensure that coaches are knowledgeable, collegial, trustworthy, and able to guide teachers through reflective processes to promote thinking and further application. By having a second set of eyes and ears in the classroom, participants were able to focus more clearly on impacting the students in which they served ultimately supporting them on their individual learning journeys. Schools need to ensure that coaches are properly trained and passionate to use student learning goals as the driving force of the coaching cycles because all four participants referenced the role of the coach within a student-centered coaching cycle as important.

Recommendations for Further Research

The researcher has several recommendations for further research. As the results did not delve deeper into the role of leadership in implementing student-centered coaching, it might be beneficial for researchers to examine what leaders can do to ensure that job-embedded professional learning models are implemented within their school context. Further, as participation was limited to one site, it might be beneficial to do a comparative analysis of a few sites to determine if there are similarities and differences in how participation impacted teacher self-efficacy. In addition, as there was only one instructional coach who led the cycles in this study, it might also be beneficial to explore the role of the instructional coach further with regards to mannerisms, expertise, and presence and to see if there is a further correlation between the coach's presence and the impact on teacher self-efficacy. As this particular study was limited to one site, one coach, and four participants, further contributions to research on student-centered

coaching and teacher self-efficacy could be warranted in other single site studies or through a comparative nature of several sites with a larger sampling of participants.

Conclusion

This exploratory case study involving four participants at the same large, international school in east Asia aimed to examine the impact that participation in a student-centered coaching cycle had on teacher self-efficacy. The study was designed to answer questions about the process as well as about teacher perceptions of self during the process. The researcher used interviews, a planning artifact, and participant reflective journals to answer the specific research questions. Regarding process, the researcher found that the partnership with an instructional coach and the focus on student success were the two main factors within the process that had an impact on teacher self-efficacy. Further, the researcher used the sources of self-efficacy from Bandura (1997) to see how participation in student-centered coaching impacted teacher self-efficacy. The researcher found that participants measured their own success based on their students' success as briefly mentioned in research question one, had vicarious experiences either in the form of formative assessments and observations of student participation, explained how verbal persuasion impacted their experience either from the instructional coach or the excitement exhibited by the students in the classroom during the learning activities that were co-planned and co-taught in collaboration with the instructional coach, and all four participants were able to explain that their feelings changed through the process. These descriptions allow for the research to conclude that for a variety of reasons, participating in a student-centered coaching cycle impacts teacher self-efficacy, and this is best described by the teacher as a result of their experiences through the process.

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Appendix A

Researcher: Thank you very much for participating in today's pre-study interview. A series of questions will be asked as well as potential follow up questions to promote discussion around your participation in the student-centered coaching self-efficacy study. These questions will serve as a guide to promote discussion in a semi-structured format. The interview will be conducted over a one hour period and will be recorded using the researcher's tablet. Content of the interviews will be transcribed and the notes will be kept confidential through the collection and analysis process. Please note that you will be provided a copy of the transcribed research notes to check for accuracy. Do you have any questions before we begin?

- 1. What are you hoping to achieve as a result of participating in a student-centered coaching model?
- 2. Specifically, what student learning goal will you target in your student-centered coaching cycle?
- 3. What is your perception and understanding of student-centered coaching model and its' impact on student learning results and teacher practice?
- 4. What is your perception of your students' abilities at the moment in relation to the targeted goal?
- 5. What is your perception of your ability to help impact student learning outcomes?
- 6. How would you describe your feelings and beliefs about participating in a studentcentered coaching cycle?

Researcher: Thank you very much for your participation in today's interview. You will be provided a copy of the transcribed notes within a one week time period to check for accurate depiction of your thoughts and reflections through this interview protocol.

Appendix B

Researcher: Thank you very much for participating in today's post-study interview. A series of questions will be asked as well as potential follow up questions to promote discussion around your participation in the student-centered coaching self-efficacy study. These questions will serve as a guide to promote discussion in a semi-structured format. The interview will be conducted over a one hour period and will be recorded using the researcher's tablet. Content of the interviews will be transcribed and the notes will be kept confidential through the collection and analysis process. Please note that you will be provided a copy of the transcribed research notes to check for accuracy. Do you have any questions before we begin?

- What experiences within the coaching cycle contributed to your confidence in improving your practice? (mastery experiences)
- 2. How did your experience with an instructional coach influence your confidence to improve student learning outcomes? (vicarious experiences)
- 3. What was said to you by individuals (instructional coach, colleagues, or students) as you worked through the instructional coaching cycle? What messages did you get from these people through the process (verbal persuasion)
- 4. How would you describe your feelings or beliefs of your ability to improve student learning outcomes as a result of participation in student-centered coaching (physiological state).
- 5. What specific components of the student-centered coaching cycle increased your confidence in the process?
- 6. What specific components increased your confidence in your teaching abilities and ability to improve student learning outcomes?
- 7. What is one memorable story that helps the researcher understand your growth through the student-centered coaching process?

8. Reflecting on the experience of the cycle, what was most successful, and what would you have done differently should you have the opportunity?

Researcher: Thank you very much for your participation in today's interview. You will be provided a copy of the transcribed notes within a one week time period to check for accurate depiction of your thoughts and reflections through this interview protocol.